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ABSTRACT

Eighteen papers from the University of South Africa's Conference on Distance Education are presented on issues in education and distance education. They include: "Distance Education in Africa's Educational Development: The Case of Ghana" (Joe K. Ansere); "Distance Education: A Solution to the Economic Problems of Education in Southern Africa" (M.G. Andrew); "The University of Transkei and Distance Education" (Norman M. Hodge); "Perspectives on the Role of Distance Education in a Curriculum for Continuing Professional Education" (C.A. Kapp); "Responsibilities of Academic Staff" (Tim Moelwyn-Hughes); "'Distance Education' at a Residential University" (S.J.P. du Plessis); "Distance Education in Developing Countries: The Ecology of Development or the Need for Context Sensitivity" (Anton Muller); "Education in an Information Society: Implications for Teaching in South Africa" (Jacques Steyn); "The Explosion in Student Numbers: Some Moral and Pragmatic Considerations" (J.C.G.J. van Vuuren); "Psychic Aspects of Distance Education" (Trysie Grobler); "Art History in Africa: A Look at Course Content" (Lize van Robbroeck); "'Forget and Forgive Her Sex': Integrating Women Artists with Art History" (Marion Arnold); "Generating a Creative Future: Strategies for the Teaching of Creativity within the Context of Distance Education Systems" (Nina Romm, Norma Romm); "Non-Formal and Functional Distance Education in Southern Africa" (Hennie Swanepoel); "Taking a Positive View of the (Dis)advantages of Distance Teaching: Reading Skills, Writing Skills and Theory of Literature" (Ina Grabe); "Continuing Education as a Function of a University for Distance Education" (L.P. Calitz); "The Possible Role of Distance Teaching in the Education System of South Africa" (D.C. Badenhorst); and "Accountability in Distance Education" (E.A. Coster) (LB)

PAPERS 2

Issues in education and distance education

DISTANCE EDUCATION IN
SOUTHERN AFRICA:
PREPARING FOR THE 21ST CENTURY

18-21 MAY 1987

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PREFACE

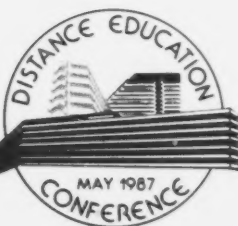
The conference papers to be presented at the University of South Africa's Conference on Distance Education are contained in a number of volumes for easy reference. The papers have been collected according to basic themes as follows:

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Systems and strategies in distance education	Papers 6

This is Volume 2 of the papers. The table of contents lists the papers in this volume in order of abstract numbers.

In the alphabetical index all participants' names, the abstract number of their paper, the session allocated and the volume in which the paper is published can be found. Not mentioned are papers that may be published in Volume 7 entitled "Late Submissions".

F. van den Bogaerde
CONFERENCE CHAIRMAN



KEY

ABSTRACTS

1000 SERIES — Participants from Africa and Abroad

2000 SERIES — Participants from southern Africa

3000 SERIES — Participants from the
University of South Africa

3100 — Administrative and Professional

3200 — Faculty of Arts

3300 — Faculty of Education

3400 — Faculty of Economic and Management Sciences

3500 — Faculty of Law

3600 — Faculty of Science

3700 — Faculty of Theology

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PAPERS

DISTANCE EDUCATION IN AFRICA'S EDUCATIONAL DEVELOPMENT:
THE CASE OF GHANA

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1. INTRODUCTION

Ghana has had a long and impressive history of education. This has been as a result of the contribution of different groups of people who at one time or other got involved in the administration of the country. The first, in chronological order, are the early colonialists and merchants¹ who from 1529 onwards started schools in the castles for their mulatto children² as well as children of some wealthy African families. The second group of people were the colonial governors, especially Governors Rodger, Guggisberg and Burns who, from 1909 to 1940, laid a firm foundation for formal education in the country. The third were the missionary churches³ which established from 1800 to 1850 schools as part of their missionary work. The fourth and the last group of people were the African political leaders who continued to support education after gaining independence. Here, a special tribute should be paid to the late Dr Kwame Nkrumah who through his progressive educational policies⁴ helped to increase educational opportunities for all in the country.

We should of course not forget to mention informal education which preceded and has been going side by side with formal education. It is an undeniable fact that before the whiteman set foot on the Gold Coast (as Ghana used to be called) and introduced the western type of education, Africans had their own traditional way of educating themselves. Although the traditional educational system used oral methods rather than written literature, it played a useful role in educating members of the communities. It is only when African societies became larger and got involved in modern development that the traditional type of education became inadequate. Even so, we

still need informal or traditional education to buttress our modern development.

Evidence abounds to show Ghana's impressive performance in educational development. According to available statistics,⁵ Ghana spends around 20% of government budget on education, and this has led to the establishment of several educational institutions in the country. The country is able to provide schooling for 70% of children of compulsory school age, and there are three universities for a country of some 12 million people. What is more, the quality of education in Ghana is acknowledged to be very high. This can be ascribed to the efforts of the Europeans who insisted on patterning education in the country on the system and standards that obtained in their home countries,⁶ and to the determination of Governor Gordon Guggisberg to see to it that

- (a) "primary education must be thorough; and
- (b) the staff of teachers must be of the highest possible quality."⁷

Our assertion that Ghana has an impressive record of educational development can be sustained only when we compare our efforts to those of other African or developing countries. In relation to the manpower needs of the country and the generally high demand of the population for education and training,⁸ we can hardly say that the present level of educational provision in Ghana is adequate, and that there is no need for any other system of education. On the contrary, there is a great need for considering other systems of education, and this is predicated on the inadequacies that are inherent in formal education and on the advantages of other systems such as distance education.

2. INADEQUACIES OF GHANA'S FORMAL EDUCATION

We can identify three main areas in which the formal education system in the country is inadequate. The first is its low absorptive capacity; the second is its inability to train the

manpower resources; while the third is its high cost of provision.

By absorptive capacity is meant the ability of the formal education system to provide opportunities sufficient enough for the people to continue their education at the successive stages of the educational ladder. We have already alluded to the fact that the formal education system is unable to absorb all those children who should be going to school. After finishing elementary school, only 11% of those who have so finished can be taken by the secondary school system, the remaining 89% of them being left to their own devices.⁹ And among the candidates who finish secondary education at what is called the advanced level of the General Certificate of Education, and who qualify by their grades to enter the universities, only 50% gain admission into the universities,¹⁰ the other 50% of them being left to fend for themselves.

Added to this is the fact that the educational system is unable to keep the students who enter the various cycles of schools. We are referring to the incidence of drop-out. If we look at the enrolments in the first cycle schools, we notice that out of some two hundred thousand pupils and some one hundred and thirty-one thousand pupils who started the primary school and the middle school respectively in 1968/69, about a third of the number of pupils in each category dropped out before they could reach the end of the cycle.¹¹ All this means that the completion rate in the first cycle of schooling is about two-thirds, which represents a great deal of wastage.

The second cycle of education in Ghana exhibits the same defect, although this is to a lesser extent than it is in the first cycle institutions. According to records, about 11% of the pupils who enter secondary schools drop out before they complete the cycle.¹² Since secondary education, especially if it is boarding, is expensive, a drop-out rate of 11% constitutes a great deal of wastage.

In sum, we can say that - and this has been mentioned elsewhere in the author's works¹³ - the formal education system operates as a sorting machine, selecting only some of its products for admission into subsequent stages of education while dumping the rest by the wayside. What is more, it pushes out many of the pupils who manage to gain admission into school. No proper research has yet been done on this problem, but it might be true to say that the nature of the formal education system bears a great responsibility for this situation.

The inadequacy of the formal education system in Ghana can also be seen in the related area of manpower development. As has been illustrated in a previous study,¹⁴ the country's labour force has remained largely uneducated and untrained. As much as 72.2% of the country's labour force is illiterate, and among those who are literate, the majority have only up to secondary school education.

The same goes for the teaching profession. According to the records,¹⁵ only about half of the teachers in the first cycle educational institutions are trained, the other half being untrained. The Accelerated Development Plan for Education of 1951 resulted in a great increase in school enrolment, and this led to a corresponding increase in the number of teachers. Unfortunately, the increase in the number of teachers was more in favour of untrained teachers than trained teachers. The teacher training colleges were unable to expand their intake of student teachers as quickly as the number of teachers increased. This is further evidence that the formal education system has a low absorptive capacity.

The third area in which the formal education system has proved defective is its high cost. As mentioned above,¹⁶ the Government of Ghana spends about 20% of its annual budget on formal education. This includes both recurrent and capital expenditures, and amounts to a little over a billion cedis.¹⁷

It will be seen from the study afore-mentioned¹⁸ that expendi-

ture on capital items in the formal education system is greater than recurrent expenditure. It is also evident that the largest single item in the capital expenditure is expenditure on buildings, followed by expenditures on furniture, vehicles and plant and equipment - in that order. This is so because of the residential nature of formal education. Both staff and students are required to be in residence at the colleges before they can perform. Although most of these capital items are acquired only once, the annual maintenance takes a heavy toll of the financial resources of the institution.

Among the recurrent expenditures the largest single item is personal emolument; that is salaries and allowances. In the study mentioned above, salaries and allowances paid to the staff represented close to 80% of total recurrent expenditure. Expenditure on utility services (such as water, electricity and conservancy) was the next largest recurrent expenditure item. Again, it can be said that these expenditures arose because of the residential nature of the formal school system.

What has been the result of all these sacrifices? For an answer the Government Statistician stated as follows:¹⁹

"Despite the huge investments in education by successive governments, quite a number of potential students were unable to find places in schools at all levels."

One may add that the allocation of such huge resources to formal education prevents the provision of other worthwhile services and distorts the overall development of the country.

3. THE COMPARATIVE ADVANTAGE OF DISTANCE EDUCATION

Distance education has been proved in Ghana to have the capacity of providing education to large numbers of people, of doing this at lower cost, and doing this without withdrawing participants from their work and home. As will be seen later,

a single teacher training programme, run by distance education methods, has been able to admit as many as 7 000 participants, and that this has been done at a fraction of the cost that is incurred in training people by the conventional method. Besides, it has been possible for the teachers to undergo training while still holding their jobs and living at home with their families. The students have also had the flexibility of learning anytime and anywhere without interruption in their lives, and they are able to test immediately the theories they learn against practical situations they meet at school and home.

For further details about all these comparative advantages, we will refer to the study carried out by the writer.²⁰ Although it is true that the capital outlay on both programmes was discovered to be greater than the recurrent expenditure,²¹ the amount spent on acquiring capital items such as buildings, furniture and the like for the distance education programme was far less in absolute terms than was the case with the formal education institution. The former was lower than the latter by a factor of 25. What is more, the level of capital expenditure in the distance education programme bore less direct relationship to variations in student enrolment. That is to say, the authorities in the distance education programme did not have to increase capital expenditure too much in order to admit more students, whereas the conventional education institution had to increase capital expenditure markedly before it could increase its intake of students. Dormitories, dining halls and classrooms for students and houses for staff had to be expanded so that more students could be admitted. This is not to mention the concomitant expenditures such as electricity, water and conservancy.

The same story can be told of the structure of recurrent expenditure. Although, and this has been mentioned, personal emoluments constituted in both cases the largest single item in the recurrent expenditure, it is true that the amount involved was smaller in the distance education programme. All this is

because distance education is less labour-intensive than the formal education system.

If we look at the situation in terms of cost per unit, we see that the cost of distance education programmes is still lower than the cost of formal education. Since distance education programmes can take large numbers of participants without increasing fixed costs to any great extent, the cost per student is bound to be lower. This is where we base the calculation on total costs which include fixed or capital cost and variable or recurrent costs. If we calculate the cost per unit on the basis of recurrent costs only, the unit cost will be lower still. The ratio was 1:59. If we take account of the value of output gained by the economy as a result of able-bodied individuals continuing in employment and paying taxes while learning, the comparative advantage of distance education will be much greater. To put it conversely, if we take account of the output lost to the economy as a result of able-bodied individuals withdrawing from gainful employment in order to devote themselves to full-time studies in residential colleges, the comparative disadvantage of formal education will be greater.

4. DISTANCE EDUCATION PROGRAMMES IN GHANA

Distance education has of course existed in Ghana for a long time. According to a study conducted by the writer,²² Ghanaians' experience with distance education dates back to the early part of the 20th century. There are records to show that many individuals who had had some schooling through the early schools registered with overseas correspondence schools²³ in order to further their education. They did so because there were no opportunities for further education in the country. Political leaders such as Dr J.B. Danquah, Professor K.A. Busiah, and Mr William Ofori Atta, to name but a few, utilised overseas correspondence courses for their matriculation qualifications before they could go on to Britain to do higher courses. And there are records to show that a lot of money -

at that time in sterling - went out of the then Gold Coast to pay for tuition fees in respect of correspondence course materials.

Discounting correspondence courses that are organised from outside the country, we can say that there are basically two distance education institutions in Ghana at the present moment. These are the Correspondence Education Unit and the Modular Programme. The former was established in 1970 while the latter was established in 1981. Both institutions are state-owned, the former being under the aegis of the Institute of Adult Education of the University of Ghana while the latter is under the Ghana Education Service. There are no indigenous private correspondence/distance education agencies.

Both institutions are integral parts of more broadly-based organisations rather than standing on their own as separate institutions. The Correspondence Education Unit, as the name implies, is a unit of the Institute of Adult Education which is a department of the University of Ghana. Similarly, the Modular Programme is a unit of the Teacher Education Division of the Ghana Education Service which is under the Ministry of Education. Both are therefore subject to the authority of higher organisations. While this structural arrangement helps to dovetail the programmes of the distance education institutions with the overall educational policy of the government, it is not helpful to the growth of the institutions, as they cannot take decisions and go on to carry them out without having to wait for approval from above.

The Correspondence Education Unit offers secondary education mostly for working adults who missed their secondary education earlier on in their lives. On enrolment can also be found repeaters of the formal secondary schools. The courses the Correspondence Education Unit offers are the same as those offered by the conventional secondary schools. There was an attempt to construct a separate syllabus for the adult students as was the case in Kenya some time ago. The idea was that

adult learners had different experiences from those of children and that they needed a different syllabus from that used for children. Like the position in Kenya, however, the idea did not materialise.

The Modular Programme, on the other hand, is meant for untrained teachers; that is, pupil teachers, as we call them in Ghana. Ghana has some 80 000 teachers in the teaching service, but only half this number are trained, with the other half being untrained. Realising the adverse effect that such a situation would have on the quality of education, fearing the high cost that might result from training such a large number in the conventional manner, and recognising the disruption that the withdrawal of these personnel from teaching might cause, the government decided to train pupil teachers by distance education methods. Like the secondary school course for working adults, the syllabus for the Modular Programme is the same as that for the conventional teacher training programme. As has been mentioned elsewhere,²⁴ the Modular Programme covers the first two years of the existing 4-year Teacher Training course. After the pupil teachers have successfully completed the first part of the programme by distance education, they join their counterparts in the residential teacher training colleges for the remaining two years.

It can thus be seen that students working under the Modular Programme study for their teacher-training qualifications partly through distance education and partly through formal education. It is like the system in Russia and other countries where higher education students do part of their course by distance education and the other part in residence.²⁵ The Modular Programme model represents yet another model of the organisation of distance education programmes, and adds to the ones evolved by Kaye and Rumble.²⁶ The Correspondence Education Unit also shows another variant of course delivery system in distance education. In one of the locations, namely in Accra, tutors at the evening class programme are allowed to use the study materials prepared for distance education students

for their face-to-face students, thus combining the distance education course and the formal education course. This arrangement has had a favourable effect on the performance of the students, and it is sad to think that the arrangement has not been extended to the other locations of the Correspondence Education Unit. In the rest of the country, the programme takes the normal form of students working independently on the course material sent to them.

Both institutions are very limited in their use of media. The Correspondence Education Unit utilises only the written instructional material for teaching, except that, as has been mentioned, one location operates the integrated system. The fact that the programme uses correspondence texts mainly is probably one reason why it has stuck to the name 'Correspondence Education Unit' instead of changing it to the more inclusive title 'Distance Education Unit'. The Modular Programme, on the other hand, uses in equal proportions written correspondence material and face-to-face teaching. Both programmes however do not employ any of the electronic media, such as radio and television.

The absence of electronic media in these programmes may be caused by lack of funds, but it may also be caused by lack of expertise. There is a dearth of educational technologists in the country. For the Correspondence Education Unit, an additional reason might be the fear of the organisers concerning too complex an organisation to manage effectively.

It is interesting to note that there is no distance education programme in the country for pre-secondary school education (as is the case in Australia). And certainly not for post-secondary school courses or for higher education as exists in such other African countries as South Africa and Zambia. And apart from the Modular Programme, which is organised for teachers, there is no distance education programme for any other profession. Perhaps more significantly, there is no distance education programme for community education as exists

in the Ivory Coast in the form of INADES. There are traces of distance education for agricultural communities in Northern Ghana in the form of radio broadcasts to farmers, but this programme has yet to develop.

5. PROBLEMS FACING DISTANCE EDUCATION IN GHANA, AND SOME POSSIBLE SOLUTIONS

One big problem facing the two distance education institutions in Ghana is how to satisfy the great demand for education that has been unleashed by their establishment. Open learning systems, examples of which are the Correspondence Education Unit and the Modular Programme, connote in the mind of the public the absence of restrictions on admission. When these programmes were established the public not unexpectedly hoped for an unfettered admission procedure. They were therefore disappointed when they came to know that the institutions could not admit anybody and everybody who applied. The limitations placed on the ability of the institutions to admit more people may be caused by financial constraints, but it is also true that organisational problems may be responsible.

So far no solution has been found for this problem. On the contrary, the institutions are having to limit their enrolments still further. For instance, the Modular Programme is able to admit only 7 000 out of the 40 000 untrained teachers, and the Correspondence Education Unit has had temporarily to halt admissions to its programme.

The other problem which has already been touched upon is insufficiency of funds. The two organisations simply do not have enough money to execute their programmes. As state institutions they are not allowed to charge economic fees for their services, and yet the government is unable to allocate enough funds to them. The problem is compounded by the way the two organisations are structured. As has been mentioned, these two distance education institutions are part of other organisations rather than being autonomous institutions with their own

financial resources, able to take their own decisions and carry them out independently. Being part of other agencies means that they receive their allocation from the general pool of funds that their parent organisations have received from the government. These parent organisations usually allocate the funds they have received on the basis of their own estimation of the relative importance of the various units. It is possible that these parent organisations will be inclined to favour older units of the organisation rather than new ones like distance education institutions. One solution which may be considered is to make the distance education institutions autonomous in both financial and organisational terms, and to allow them to charge appropriate fees for their courses.

The Modular Programme is better placed than the Correspondence Education Unit in terms of funding. The programme is assisted externally by the British Council and the British Overseas Development Administration. The former supplies funds for hardware items such as vehicles, as well as software items such as books and printing materials. The latter supplies personnel in the form of advisers who help with the writing and organisation of the courses. No money as such is given to the institution.

Another problem confronting the two institutions is how to complete the writing of the courses. Both institutions advertised their programmes and admitted students when they had completed writing only some of the units, rather than waiting to finish writing all the units in all the courses they promised to offer. I was one of the people in the Correspondence Education Unit who took the decision to admit students at a time when only about one-third of the units of the courses had been written.²⁷ Using hindsight, I think that this was a mistake. I think that we allowed ourselves to be carried away by extreme optimism and enthusiasm which unfortunately could not be fulfilled due to the realities of the situation. There is nothing more frustrating in the life of a student studying at a distance education institution than to have to wait

endlessly for study materials. This is the surest way of ensuring that the student loses interest and drops out.

Apart from not having all the materials he needs for study, the distant learner suffers from delays in the dispatch of the study materials. This is due to a deficiency in the postal system. Ghana is said to have a good postal service, but this is true only in relation to what obtains elsewhere in other developing countries. In terms of what ought to be the case, Ghana's postal service leaves very much to be desired. According to research conducted by the writer,²⁸ it takes weeks for a lesson to go to and from the distant student; that is, without counting the time the lesson remains in the hands of the student and the administrators.

One solution to this problem is to use a courier system, but courier systems, by their very nature, are expensive - irrespective of whether they are organised by the institution itself or by a private company. The organising body has to have a good fleet of vehicles and a good complement of staff for the system to succeed. A courier company on the other hand will charge highly for its service. It is to circumvent this problem that many distance education institutions in Africa rely on the public postal service (which is usually subsidised).

The organisers of the Modular programme have attempted to solve this problem by carrying their study materials in bulk to the various participating training colleges from where the distant students collect the materials on their own, especially when they go for residential sessions. This however does not solve the problem completely, for the student has to face the problem of incurring transport costs before he can get the material. It means therefore merely transferring the problem from the institution to the students.

6. CONCLUSION

In the foregoing, an attempt has been made to explain, inter alia, the contribution that distance education can make and has made to the educational development of the country. To enable us to understand the issues, we have gone into details about the evolution of the system in the country, the extent of the involvement of the system in the country's educational development, and into the problems the programmes encountered and how these problems have been (or should be) tackled.

What then is the future of the system in Ghana and, by extension, in Africa? Judging from the experience gained, we can say that the system is worthwhile. Although it cannot be said to be the panacea for all educational problems in the country, it is a fact that - if used properly - it can help us to serve many of our educational needs.

7. REFERENCES AND NOTES

1. The Portugese established a school at their Elmina Castle in 1529. The Dutch did the same at Elmina Castle in 1637 when they seized it from the Portugese. The Danes followed by setting up a school at the Christianborg Castle in 1722; and the British built a school at the Cape Coast Castle in 1751.
2. The Europeans usually left their wives and children at home and, on arrival on the Gold Coast, 'married' African women. According to the demands of native custom, they were obliged to maintain these African 'wives' and the children who came out of the relationships. It is known that a Fund (called the 'Mulatto Fund') was set up at Cape Coast into which Europeans with African wives paid part of their salaries for the maintenance of these African wives and their children.
3. These were the Wesleyan (Methodists), the Basel (Presby-

terian) and the Bremen (Evangelical Presbyterian Church). The Catholics came in from 1880 onwards.

4. The most notable policies of Dr Kwame Nkrumah in respect of education were the Accelerated Development Plan for Education, 1951 and the Education Act of 1961.
5. Republic of Ghana, **Economic Survey, 1981**, Central Bureau of Statistics, Accra, August, 1983, pp.266-7, 269.
6. C.K. Graham, **The History of Education in Ghana**, Ghana Publishing Corporation, Accra, 1976, p.18.
7. Republic of Ghana, **Ghana Today no. 9: Education in Ghana 1930-1975**, Information Services Dept, Accra, pp.1 & 2.
8. The extent to which parents are coerced into sending their children to school has fallen considerably these days.
9. Ghana Manpower Board, **Education and Manpower Development in Ghana**, Ministry of Economic Planning, Accra, February, 1975, mimeograph, p.4.
10. D.A. Bekoe, **Vice-Chancellor's Address at Matriculation**, 8/11/80, mimeograph, p.2.
11. J.K. Ansere, **The Relevance of Distance Education to Socio-economic development: The Case of Ghana, Adult Education in Nigeria**, Vol. 7, December, 1982, p.43.
12. *ibid*, p.44.
13. *ibid*, p.45.
14. *ibid*, p.47.
15. J.K. Ansere, **Ghana Trains Teachers by Distance Education**, mimeograph, Accra, 1986, p.2.

16. *supra*, p.1.
17. The present rate of exchange is #152.00 = US \$1
18. J.K. Ansere, 1982, *op.cit.*, p.46.
19. Republic of Ghana, **Economic Survey, 1981**, *op.cit.*, p.268.
20. J.K. Ansere, 1982, *op.cit.*, p.46a.
21. Outlay on capital items in distance education tends to be high at the initial stages of operation and when more and more electronic media are added to the programme. Capital outlay however falls as time passes.
22. J.K. Ansere, Development of Distance Education in Ghana, **Kenya Journal of Adult Education**, Vol. 7, No. 3, December, 1979, p.12.
23. The overseas correspondence schools that operated in the country then and later were: The Rapid Results College; Wolseley Hall; Metropolitan Correspondence School (all located in the U.K.); and the International Correspondence School in the U.S.A.
24. J.K. Ansere, **Ghana Trains Teachers by Distance Education**, *op.cit.*, p.2.
25. Nigel Grant, **Soviet Education**, Penguin Books, Cox & Wyman Ltd., London, Reprint 1970, pp.130, 139.
26. A. Kaye & G. Rumble, **Distance Teaching for High and Adult Education**, The Open University, London, 1981, pp.15-17.
27. The writer was Deputy Head of the Correspondence Education Unit and later became its Head.

28. J.K. Ansere, "Characteristics of Correspondence Students in Ghana", Ph.D. Thesis, University of Wisconsin, Madison, 1976, p.144.

DISTANCE EDUCATION: A SOLUTION TO THE ECONOMIC PROBLEMS OF EDUCATION IN SOUTHERN AFRICA

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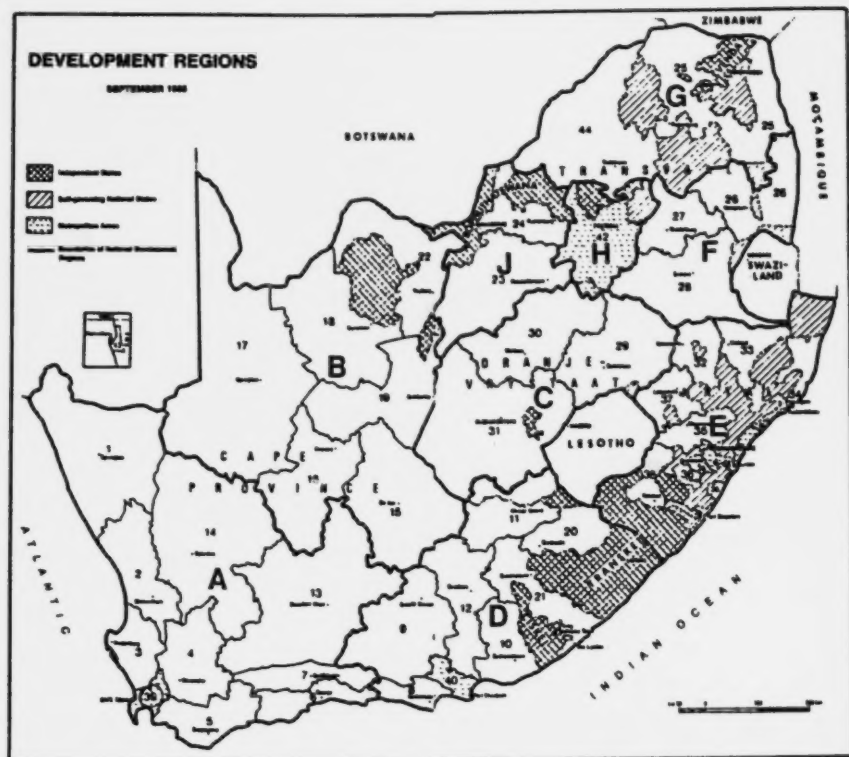
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Southern Africa is beset by the economic problems of education. Most developing countries have such problems, but the Republic of South Africa and, to a lesser extent, its neighbouring states have a further complicating factor in that it is regarded not only as an economic problem but as a racial problem as well: the White, Coloured, and Indian (mainly urban) population groups tend to have more spent on them than the Black (mainly rural) population does.

Education, as does the whole economy, suffers from 'a form of dualism in which a stagnant, subsistence agricultural sector exists alongside a large-scale, commercialised agricultural sector, and an urban and rural informal sector exists alongside modern secondary and tertiary activities'.¹ As can be seen from the map of Development Regions (September 1985) on the next page, there are nine regions demarcated for development planning according to a regional development agreement adopted by the respective governments of South Africa, the independent states, and the self-governing National States in 1982. It is interesting that there are only four metropolitan areas in South Africa (39, 40, 41, 42 on the map: Cape Town, Port Elizabeth, Durban-Pietermaritzburg, and the PWV area). The 'spatial manifestations of the ... socio-economic features' of South Africa are:

- '- Economic activities are concentrated in a few large centres close to either mining operations or coastal ports. The transport and communication networks reflect the dominance of these centres, which constitute the metropolitan core.*
- Those parts of the non-metropolitan areas which are located outside the self-governing and independent states - that is,*

¹'The Development Bank of Southern Africa in the Regional Development Framework' by A B la Grange (Finance and Trade Review, Vol. XV no. 5, Volkskas Limited, 1985/86), pages 1-2.



Reproduced from the same article, pp. 4-5.

the inner periphery - are relatively wealthy in terms of output and income per capita, and are relatively well supplied with infrastructure.

- *In other parts of the non-metropolitan areas - that is the TBVC countries and self-governing states or the outer periphery - the level of productive economic activity is lower with a disproportionately large share of poor people. Many of the under- and unemployed are located there, while migrants and commuters from these areas to the modern sector generally earn wages that are low relative to the average in the modern sector, although constituting a significant improvement over average incomes in the outer periphery. These areas contain most subsistence agricultural activities, and are poorly supplied with infrastructure.*
- *Pockets of relative poverty and prosperity co-exist on a sub-regional basis in all of these areas.*

The three types of areas identified above are the metropolitan core areas, and the inner and the outer peripheries. They are located in various parts of the development area, while at least some of the more as well as the less developed sector activities are found in each of these types of areas.²

²Ibid., page 3.

As the following table shows, the population and the productivity of these areas vary greatly:

TABLE 1 — POPULATION, GROSS GEOGRAPHICAL PRODUCT AND GROSS GEOGRAPHICAL PRODUCT PER CAPITA, 1970 AND 1985

	1970						1985					
	GDP per capita		GDP at current factor cost		Population		Population		GDP at current factor cost		GDP per capita	
	R	Rm	%	'000	%	%	'000	%	Rm	R		
Core areas	1 134	8 226	68,3	7 251	33,3	30,0	10 179	62,0	67 817	6 662		
Inner periphery	476	3 510	29,2	7 368	33,8	28,0	9 298	33,0	36 517	3 927		
Outer periphery	42	301	2,5	7 175	32,9	42,0	14 221	5,0	5 266	370		
Total	552	12 037	100,0	21 794	100,0	100,0	33 698	100,0	109 600	3 252		

Source: Development Bank of Southern Africa

This quick sketch of the socio-economic problems of Southern Africa because of its dualism is relevant to the varying educational needs of our country.

In many parts of Southern Africa today students are not being taught because of a shortage of teachers. Other students are prevented from attending classes because of political unrest. There are schools where, although there may be teachers for some subjects, other subjects, like Mathematics and Physical Science, suffer because of a lack of qualified teachers. Many students in outlying areas are at a disadvantage because of the geographical inequality of teacher distribution. Not only are there problems with regard to the actual education, but there are also problems in Southern Africa with regard to the financing of education. If parity of educational standards among the various race groups is to be achieved, then it will be necessary to spend more on Black education and less on White, Coloured and Indian education. This will inevitably cause a hue and a cry from those population groups who have had a higher standard of education and on whom the bulk of the finances for education has been spent. There is no doubt that much of the education that is being offered in schools does not equip the students for later life : they go on to try to find work, and the education they have received frequently does not equip them for their work or for their further

studies. This is an economic problem of education because in the long run the country suffers because of an inadequate or an unskilled workforce.

Distance education, or, as it has been known in the past, correspondence education, can solve many of these problems. If teachers are not available for particular subjects, a distance education programme that becomes part of a school curriculum, can easily be supervised by a qualified teacher even though he is not qualified in that particular subject. In other parts of the world correspondence education makes an important contribution to classroom education. In Southern Africa we tend to overlook the fact that schools will welcome and make use of correspondence college material if they are encouraged to do so. Since the late fifties schools in Europe have used correspondence material to supplement their classroom programmes, especially when there is a lack of qualified staff in schools or when the choice of subjects offered is too wide to have specialist teachers for each subject. From Africa to Norway correspondence material is being welcomed in schools, and frequently time is allocated on the school timetable for such correspondence study; formal assignments are then submitted under the school's control, but with the expertise of the correspondence college's tuition. This demonstrates the important standing of correspondence tuition in the educational structure of other states.

Yet in Southern Africa this is the rare exception rather than the rule. Distance education has the advantage of being able to provide the highest standards of educational material at a relatively low cost and it can therefore overcome the problem of shortage of qualified teachers in a particular subject. It has been my experience that many teachers who doubt their ability in a particular subject already appeal to correspondence colleges or distance educationists to provide them with material so that they may improve their teaching. Now, if they were humble enough and realistic enough they could quite easily accept the situation of being in a classroom where students are using correspondence education material and where they can provide the necessary backup by way of answering questions and of giving the immediate feedback that very often correspondence education cannot provide. If educationists were to accept the contribution that correspondence material could make in such circumstances, it could become a part of teach-

ing methodology in universities and training colleges to teach student-teachers how to administer correspondence courses in schools.

For the many thousands of students who are at present denied education because of political unrest or because of geographical isolation, a correspondence course has the advantage of being inexpensive and of combining the high standards and the objectivity that the students demand. Again it would be advisable to organise such students into groups, which would meet at a particular place and have the kind of supervision that is required. It is my experience that if a high school student under the age of 21 is left to himself without supervision he will not cope with the course. But, if well-meaning people were to provide the type of education that would require somebody merely to supervise the young people's work and to provide the necessary link with the correspondence college or distance education institution, then results would improve and students would be given the kind of discipline that is an important part of distance education. In this way we could try to solve the problem of many thousands of students who either are not allowed to go back to school to complete their education or are prevented by political pressure. Of course, there is the danger in the present political crisis of such students being victimized. It is unfortunately true to say that there are people of the 'liberation-before-education' viewpoint who do not want any form of education to take place at present unless it is 'people's education'. Nevertheless if the standards of such work could be proved and demonstrated perhaps many of the arguments against political bias in education would disappear. Obviously there are other factors that would have to be considered, such as which examination the students would eventually write, but such considerations will have to be faced anyway, whether the education that the students receive is through distance education or face-to-face tuition. What is important is that distance education institutions have a much better image among Black students than the departmental schools have, and this places the responsibility of reconciliation upon distance education practitioners.

When we look at the problems of finance for education, we must see the advantages of providing a less expensive type of education. Now the obvious objection to this would be that distance education is less expensive because

it is an inferior type of education. And it is important for us to stop and consider for a while whether this is in fact so. For too long correspondence education has been labelled as inferior, as second best, as an education for those who have not succeeded at their first attempts. It is unfortunate that many correspondence students fall into this category and support this fallacy. They account also for the enormous number of correspondence students who drop out from their studies after only a cursory glance at their material. They enrolled thinking that correspondence study, because it was cheaper and because of its poorer reputation, was easy. Nothing can be further from the truth : correspondence education is difficult. It is more difficult than studying in a face-to-face situation in a classroom. But it is also a higher standard of education if the right materials are provided. The institution of which I am part uses in many of its courses the same lecture material for the face-to-face tuition as for the correspondence and, although it is true that face-to-face students form a larger proportion of the successful students, nevertheless it is an interesting characteristic of students' achievements that very often it is the correspondence student who gains the highest marks. Correspondence education is ideal for the serious student : it gives the student the opportunity to work at his own pace. Frequently, when people speak about correspondence students working at their own pace, the implication is that the correspondence student is slower; this may be so with certain students, but there is also validity in considering that a student may actually be held back by the rest of the class in a face-to-face type of tuition. The Damelin Correspondence College had an interesting case last year : a matriculation student who was an intelligent student, a person who had published poetry while she was still at school and a person who felt that she was being held back by the conventional type of classroom education, was able to spend her matriculation year studying with the help of correspondence material and also giving time to her interests of writing. She was a good student who completed all her assignments and who obtained distinctions in many of her matriculation subjects. It is this kind of achievement that we at this conference should foster. In this respect, our hosts, the University of South Africa, have provided outstanding examples of students who have achieved great success and who have become valuable contributors to the South African economy not only in their having been able to work at the same time as they were studying but also in

providing valuable contributions in the South African political, educational, and business sectors.

Nobody could deny that distance education is cost-effective. Here is an extract from an Open University publication on the subject of the cost effectiveness of the Open University:

'The Open University produces graduates much more cheaply than do other universities.

Campus universities must provide laboratories, libraries and lecture theatres for residential students, but the Open University saves these capital costs because its students live and study at home. And the students are working adults, who continue to contribute to the economy while earning their degrees.

*The University achieves additional economies by its method of course production: a relatively small central academic staff produce teaching materials that reach a large student population. The use of correspondence courses and broadcasting imposes a high fixed cost of production, but allows major economies of scale as student numbers rise. The cost of producing a course unit or television programme is the same for one student or thousands.'*³

Such considerations apply to distance education in Southern Africa as well. By the word cost-effective we do not merely mean that it keeps down costs but that the cost of education is kept low and yet the effect of the education is great. This is what we mean by 'cost-effective' in business - that we are able to produce a good product at a low cost. In business this means that one can make a better profit. And it is a pity that education has been labelled as a non-profit-making business. Somehow it is considered that if a school runs at a profit then there is something suspect about that education. I am sure that such ideas are, or should be, outdated. In my experience as a teacher at government, semi-government, and private schools, and ³An Introduction to The Open University (The Open University, Walton Hall, Milton Keynes MK7 6 AA, 1978), page 19.

at the so-called business colleges I have been impressed by the better use of resources in the business colleges than in government schools and colleges where teachers feel that they have to put up with educational bureaucracy and inefficiency. Similarly schools have problems of management : frequently teachers are promoted not because they are good administrators or managers but because they have served a bureaucratic system for x number of years. But private education of the church school type or the non-profit-making school type has just as many if not more problems : here the education may be of an extremely high standard but it is not cost-effective. It may emphasize characteristics in education that may be irrelevant in our society. Many of us in this room may have been educated under the concept of education for life, not education for a vocation. But those days when we could afford to benefit from an education that equipped us for 'life with a capital L' are gone. Today high-school education has to have a vocational direction. With rising unemployment and with young people of all races finding it difficult to gain first employment after school and university it is criminal not to make education vocationally orientated. If we are to escape the society of young people on the dole, we have to make education relevant. And distance education provides the opportunity of a wide choice to students, the opportunity of choosing subjects for which students have an aptitude and with which they have a future.

It is regrettable that the matriculation curriculum, especially the one available to Black students, does not offer much relevance to employment requirements. Students with a Matriculation or Senior Certificate qualification cannot cope with the demands of the most basic employment. It is for this reason that many employers turn to correspondence education as offering more relevant study opportunities than the matriculation system does. Professional qualifications offer the same kind of alternative to degree studies, which are seen by some employers as too theoretical. The word 'alternative' as applied to education has been bandied about and has taken on a political connotation, but there is an alternative that deserves special mention. The Foundation for Business Studies has developed a course as an alternative to matriculation for people who have had disadvantages as regards high school opportunities. Anybody with a Standard 8 qualification can study the Certificate and Diploma courses of the Foundation part-time while they

are in employment. A student who passes these examinations will undoubtedly have a better qualification to equip him for a business career than a student with a matriculation. It is in this way that distance education can offer alternatives to conventional study paths. Distance education is adaptable and dynamic, whereas conventional education tends to be limited and static.

There are cost-effective advantages to distance education that need more mention. Distance education is not only cost-effective in the sense that students can study while they are being productively employed, but it is also cost-effective in the sense that tutors can be employed part-time while they are practising their professions. In these times of the shrinking rand, many professionals are looking for part-time employment. Such professionals are in abundant supply, and people of the highest calibre are available to prepare study material. The advantages to the economy are obvious : premises need not be large; costs are reduced; standards and effectiveness are maintained by people of higher calibre than many educational institutions can obtain on their full-time staff; the mutual advantages to part-time tutors and the institution make for a good working relationship. The only deterrent is the high rate of taxation for such part-time work, and this could be a subject for distance education practitioners to take up with the tax authorities. What is needed to manage part-time tutors effectively is a strong management team with good briefing of tutors and competent editorial skills. Distance education institutions, because they have tended to be business concerns, have developed such managerial and editorial skills, whereas other educational institutions have, to their cost, tended to lack managerial expertise.

Distance education has the advantage of concentrating on the individual, an advantage that most other educational institutions find it difficult to provide. A correspondence course is ideally designed for a one-to-one relationship between the student and a representative of the college with which he is studying. From the outset, whether the student comes into the college to enrol or whether he sends in his enrolment by post, his study plans are designed with him in mind, not with the needs of his class or with the subject choices available because of time-table clashes or other typical considerations. With his examination date in mind as well as his enrolment

date, a study schedule that is for him alone can be drawn up. His assignments can be sent in at any time and they will be marked; he does not have to catch up with the rest of the class if he enrolls late; he has not missed any work or assignments; if he sets himself an unreasonable study programme by enrolling in August for an examination in November, he will be advised against it, but, if he insists on learning by failure, he has this right, and often such students, because of their determination, succeed.

The best study material used for distance education is personalized : it is written for the one reader out there. Tutors, like radio announcers, must have the one student in mind, not the masses, when they communicate. The language of the study guide must be friendly and simple. The student must feel that he is being spoken to personally through the printed word, the cassette, the computer, the video, or the television set.

When he experiences difficulty, he must be able to communicate as quickly as possible with his tutor. Again this communication, whether by telephone, face-to-face, by letter, or by computer, is one-to-one. He does not feel threatened by the impatience or scorn of the rest of the class. This is a considerable advantage to the sensitive student. He feels he has the full attention of his tutor or adviser. One-to-one education of this kind is far more effective than mass education. Unfortunately not enough students avail themselves of this opportunity. I encourage my students to 'complain' and I tell them that my best students are those who complain about their courses. This is, of course, merely a ruse to encourage students to keep in touch with their college. The great malady of correspondence students is loneliness, and the symptom of this is laziness or apathy. It is ironic that students tend to see distance education as distant rather than intimate; this is one reason why I prefer the name correspondence to distance education.⁴ If I am a correspondent, I am in an intimate relationship. If I am distant,

⁴I am aware that there is a technical difference between a correspondence course and a distance-study course : a correspondence course may be limited to printed courses, whereas distance-study courses may be less restricted and refer to courses based on other media than the printed word. My preference for 'correspondence' rather than 'distance' may still be valid.

I am far away. Correspondence education concentrates on the individual, and we are failing in our work if we give a different impression.

This is why it is unfortunate to give correspondence students stringent regulations about such things as enrolment dates and assignment dates. I am aware, of course, of administrative considerations that have to be borne in mind, but regulations tend to herd students into masses, whereas correspondence education concentrates on the individual.

If the student is to feel that he is being treated as an individual, he must be integrated into the learning process. He must not merely be told what to study; he must be part of the learning process. This is where evaluation of courses by students, quick feedback to students, and using assignments as teaching rather than testing opportunities come in. Like the best counselling, the best education must be learner-centred, not directive. Distance education gives maximum opportunity for this, and the advantages to the student as regards confidence, self-awareness, and self-respect are well known. Whereas education today needs to be vocation-orientated, it must also be learner-centred. The two are not exclusive of each other but complementary.

It is unfortunate that not much research into distance education is conducted. Students would feel much more integrated into the learning process if small experimental groups of students could study new courses before they are offered for more general use. The experimental students would be asked to try out alternative presentations and give their views. The danger with such developmental testing is that experimental students do not work under the same conditions as normal students do. When we involve students in evaluation of courses we should not regard them merely as objects of study, but also as subjects. 'Evaluation as illumination'⁵ pays attention to the study milieu, i.e. to the students' learning conditions and to their life in general as it relates to their study situation. Anyone who knows about

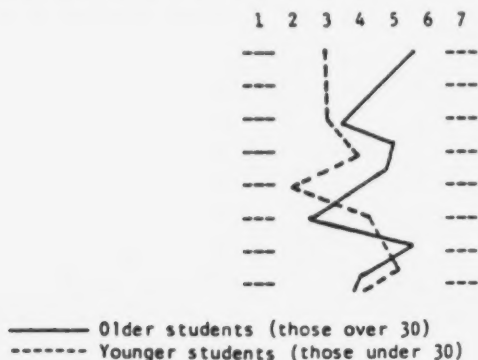
⁵A term used by Professor Borje Holmberg in a paper, 'Approach to Correspondence Course Evaluation' delivered at a conference in Brussels in October 1980. The whole of this paragraph on evaluation is based on his paper.

market research knows how important it is to keep such evaluations simple and how helpful it is if they can be quantitatively analysed. The Osgood scale, for instance, would allow a polarity profile, e.g.

The course unit is

	1	2	3	4	5	6	7	
useful to me								useless
theoretical								practical
difficult								easy
relevant								irrelevant
a handbook- presentation								conversational in style
exciting								boring

It is possible to evaluate this type of scale in different ways. One is simply to draw the profile of several objects, for instance individual course units, on the basis of the statistical means per object in relation to different groups of students, thus, e.g.



Such involvement of students in research and evaluation is a form of quality control and reminds us that in distance education we have customers or clients who pay for the services we provide and that we should therefore involve them in the service we offer.

We have already seen that distance education is dynamic. Because of its nature, distance education adapts more easily and with less cost to new directions in education, policy, and technology than does conventional education, which relies on teachers who have to be re-trained and who resist modern movements. Paradoxically, the human element, which includes an inherent resistance to change, is detrimental to dynamism in education. Part of our problem in education in Southern Africa is the lack of dynamism among the members of the teaching profession. Too often teaching is seen as a safe occupation and suffers from the public servant malaise. Distance education, on the other hand, requires one course writer - who may be part-time and practically involved with the latest developments in his subject - and a small group of dynamic tutors - who may also be part-time - to serve a large number of students on an individual basis with up-to-date course material. Most school systems take at least a generation to change, whereas correspondence education through its opportunities for research and its evaluation methods is more dynamic.

The time has come for correspondence educators to challenge schools, authorities, budget-makers, and prospective students to recognize that correspondence education is a most promising education method and to treat it in fact as an ideal education method.

Correspondence education is a democratic process : in our sub-continent we speak loosely about democracy. It is no surprise that the University of South Africa and the Damelin Correspondence College are two of the most democratic educational institutions in South Africa because correspondence education is by its nature democratic : it provides 'equal education ... to ... persons regardless of race, colour, religion, gender, national origin, age, handicap, ancestry, place of birth, marital status, political affiliation, or domicile'.⁶ But correspondence education should be even more democratic than this, especially in the underdeveloped and developing parts of Southern Africa. What we need is a People's University similar to the Open University in Britain where people of any educational background, regardless

⁶From the booklet giving details of this Conference on 'Distance Education in Southern Africa : Preparing for the 21st Century'.

of their qualification, may study at a post-school level. The University of South Africa serves a valuable purpose in educating qualified people who meet their entrance requirements and the University is to be commended for the high standards it has maintained. It keeps its entrance requirements to the minimum, and many students have entered with the four-subject 'Conditional Exemption on the Grounds of Mature Age'. Older students over the age of forty-five may study without even this low entrance qualification. The People's University would be even more open than this and would offer distance education leading to a degree to any adult, no matter what his qualifications. This would be a truly democratic solution to the educational problems many people in Southern Africa have experienced in the past. Not only would the People's University not insist on educational qualifications, it would also give recognition, as happens in overseas universities, to relevant non-university qualifications. It is one of the anomalies of the South African student scenario that a student who has achieved the CIS qualification (after four years of study and external examination and a Human Sciences Research Council evaluation of Matriculation +3 years) cannot go on to postgraduate study at a University in South Africa. This is despite the fact that his CIS qualification is frequently rated as being more difficult to achieve than a B.Com. degree. A truly democratic distance education institution considers where a person is educationally at the moment of enrolment and gives him the opportunity to progress from that point to his ultimate goal. It is often frustrating for a student to be told that he first has to go back and write his matriculation in irrelevant subjects if he wishes to study psychology, for instance.

Distance education can involve the state, private enterprise and the student in a mutually beneficial economic and educational partnership. Before 1946 correspondence education was largely the concern of private enterprise. Correspondence Colleges such as the Rapid Results College used to prepare students for the examinations set by the University of South Africa as well as other professional institutes and state bodies. In 1946 the University of South Africa was formed as a distance teaching university and the role of private enterprise in university education was effectively terminated. Private enterprise continued with tuition leading up to examinations set by professional institutes and state bodies, such as the various Departments of

Education that allow private candidates to enter for their examinations. Private enterprise has in this way made a significant contribution to adult education. Now the state is becoming more aware of the possibilities of distance education as is proved by the formation of one of the campuses of Vista University to be devoted entirely to the upgrading of Black teachers through distance education. The student in Southern Africa has therefore various opportunities of studying further through distance education.

The state is able to keep the costs of education down through using distance education rather than other forms of education. It is time that South Africa used this method more extensively, especially in the economic and educational crisis in which we find ourselves at the end of the Twentieth Century.

The good relationships between state and private enterprise should be maintained, and even developed in different directions.

There was a time when the state tended to frown on private schools and considered them as a threat to government school education. Now the state recognizes the important contribution that private schools play in keeping the costs of government school education down and in enabling many important reforms in educational policy to be tested outside the government school arena. There is an increasingly healthy relationship between private schools and the state. The private-enterprise college that seeks to run its school at a profit as a business venture has also been accepted and welcomed by the state.

The relationship between private-enterprise distance-education institutions and the state is a good one, but there is room for improvement. At present correspondence colleges prepare students for government-controlled external school examinations. In this way the colleges assist in the provision of education to hundreds of thousands of students who do not become the burden of the state as far as the provision of education is concerned. The state recognizes this contribution and exercises a controlling function over these colleges through the Correspondence College Council, a statutory body.

There are, however, problems in the way of private enterprise colleges. Certain courses, such as university courses, technikon courses, and teacher training courses, are the preserve of the state, and the contribution of private enterprise is barred. Even where there is opportunity for co-operation, as for instance in the high school examination field, it is often difficult to obtain syllabuses, past examination papers, and examination results. All this smacks of a certain suspicion on the part of government and semi-government educational authorities towards the private enterprise colleges. In the Twenty-First Century let us hope that there will be more de-regulation in our society, not more regulation of private enterprise, and let us hope that this will extend to the university, technikon, teacher-training, and high school areas too. If the image of distance education were improved, perhaps the state and private enterprise could co-operate more wholeheartedly in this area.

The status of distance education in European countries is high. Some socialist countries have high state involvement in correspondence education. Norway is an example of this. Here the state subsidizes and actively participates in promoting correspondence studies. During the years 1972-1975, before the state subsidized correspondence education, there was little increase in enrolment figures. When in 1975 the state subsidized all correspondence study fully if it led to a state examination, there was a rapid increase in enrolments. Because of the bad effects of 100 % subsidization, e.g. the high drop-out rate and the fact that students took up correspondence courses with no real intention of studying by correspondence and only to supplement their school studies, the state of Norway changed its 100 % subsidization in 1977 to a 50 % subsidization and, on completion of the course, a further 35 % refund to the correspondence student. This prevented a high rate of drop-out, and it did not cause a significant decrease in enrolments.

This would appear to be the ideal involvement by the state in correspondence education. It certainly helps the student to obtain inexpensive education. But, as can be expected in a socialist state like Norway, this experience of state subsidy has created financial problems for correspondence colleges. Before state subsidy any dropouts from the college's courses reduced the college's financial costs. When the state subsidized correspondence educa-

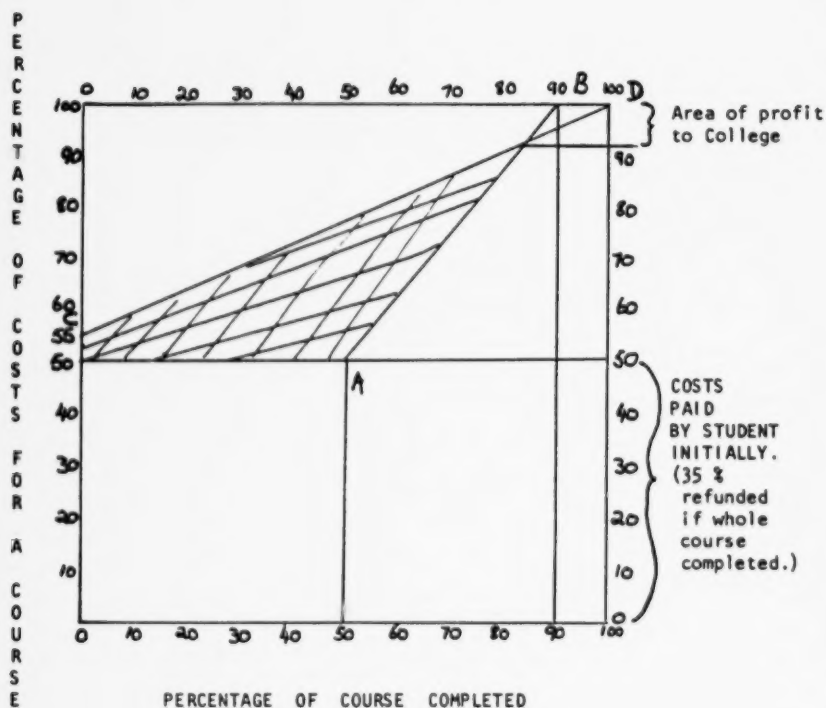
tion in full, the college profited whether students dropped out or not. But the drop-out rate was so high that the state changed its system. At enrolment the student pays 50 % of the fee. The state subsidy does not come into effect until 50 % of the course has been completed. Then the state subsidizes the college proportionately as more than 50 % of the course has been completed. If a student finishes 90 % of the course, the correspondence college will have received 50 % of the course fee from the state. This means that it is only at the top of the graph that the correspondence college shows a profit.

(See the graph on the next page.)

What further aggravated the problem is that 50-60 % of the total course costs are incurred whether the first assignment is completed or not and that the state forbade any increases in fees since it had subsidized correspondence education.

This model of state subsidy and control is quoted to show an alternative to the South African model. It also shows the danger of too much regulation of private enterprise by the state. Here in South Africa both private enterprise and state-controlled or semi-state-controlled institutions are allowed to make their respective contributions to the economic problems of education in our land.

GRAPH TO ILLUSTRATE ECONOMIC PROBLEMS OF
SUBSIDIZATION OF CORRESPONDENCE COURSES BY THE
STATE (BASED ON THE NORWEGIAN SYSTEM)



AREA OF LOSS TO COLLEGE UNTIL STUDENT COMPLETES $\pm$ 84 % OF COURSE

AB PROPORTIONATE AMOUNT PAID BY STATE AFTER STUDENT HAS COMPLETED 50 % OF COURSE

CD THEORETICAL COSTS OF COLLEGE ASSUMING
(a) 55 % COSTS INCURRED BEFORE STUDENT EVEN STARTS AND
(b) COSTS RISE PROPORTIONATELY FROM 55 % TO 100 % OF COSTS.

THE UNIVERSITY OF TRANSKEI AND DISTANCE EDUCATION

Norman M Hodge
University of Transkei

GENERAL INTRODUCTION

This paper is a pilot study for a major investigation by the Principal of the University of Transkei (UNITRA) into ways and means for the University to provide distance education for Transkei, in addition to its present role as a multi-faculty institution located in Umtata with a satellite campus 120 kilometres south in Butterworth. In 1983, when the University had an approximate student population of 1 800, the then-Principal, Professor B de V van der Merwe, felt that UNITRA would ultimately reach a final figure of 7 500 students, and that the planning for additional buildings, staff, hostels and ancillary services - on a 10 year basis - would be directed to that target. Early in 1987, the new Principal, Professor W Nkuhlu, told the author that a final figure of 5 000 was his target for the Umtata campus, with expansion as soon as feasible into distance education.

In 1985, Butterworth opened as a satellite campus offering B A (Ed) and B Comm (Ed) courses on a part-time, evening basis. This campus was the result of several years of lobbying by local agencies for a branch of UNITRA to upgrade the skills of the local teachers. Resident staff, supplemented by visiting lecturers from the Umtata campus, offer parallel courses in selected Arts and Commerce subjects, in addition to Education subjects. These programmes are taught at the Vulu Valley Senior Secondary School in Butterworth in the evening, although the Faculty and service staff will eventually be accommodated in the new Technicon which began the training of Civil Engineering Technicians (T Level) this year. In 1986, having seen the

success of the Butterworth extension, local government representatives in Lusikisiki - to the north and east of Umtata - petitioned the University and the Transkei Department of Education for a branch of UNITRA.

It is evident that there is an urgent need for the University of Transkei to expand its activities throughout the country. In 1977, for example, most of the students at the Teacher Training Colleges in Transkei had Standard 8 qualifications, with school-leaving certificates in the minority. Preliminary reports a decade later indicate that many entrants have matric exemption, and that a school-leaving certificate is insufficient to guarantee entry. A Standard 8 certificate is now almost of no practical use to the holder seeking work or further qualifications. Many matriculants lack the necessary finances to come to Umtata to study at UNITRA; can the University of Transkei come to them?

Although tuition and boarding fees are among the lowest of any Southern African institutions at R2 225 per annum, (approximately one-third of the fees required by the major white universities), these are still high for many students coming from a working-class or lower middle-class environment. In Umtata, the University has hostel accommodation for 480 female and 480 male students; those who cannot gain admission to the residences or who cannot afford the R1 500 for room and board, must seek rooms in a small city already bursting with an estimated 60,000 population (and servicing an area with a possible population within easy public transport range of 250,000), despite government efforts to build sub-economic housing units. Fortunate non-resident students find lodging with relatives or friends; less fortunate are at the mercy of landlords who overcrowd sub-standard dwellings at exorbitant fees. A preliminary survey in 1983-1984 by the Student Guidance Bureau at UNITRA emphasized the enormous problems faced by such students.

The University has no immediate plans to expand the hostels. As finance becomes available, an extension to the Science Laboratory block is planned; then, an increase in the lecturing

space and staff offices in the form of a new teaching wing is a priority. Since 1984, the hostels have unfortunately proven to be the base for student activist movements, movements which initiated boycotts on campus and ultimately lead to state intervention. In the three years, 1984-1986, hostels have been shut for varying periods by UNITRA authorities to counteract mass intimidation of non-resident and part-time students, and on several occasions the academic year has nearly been lost. Because of this, senior University management has been reluctant to consider expansion. Finances, too, are a factor with building costs escalating beyond even basic inflation, and UNITRA's resources are being channeled into adequate teaching and laboratory space for the rapidly growing student population. While the university is fully aware of the necessity for a proper study environment for all its students, it cannot limit enrollment and become solely a residential varsity unless there is massive state expenditure for hostels, something that will not be forthcoming in these recessionary times. Students who qualify for admission and have the necessary finances cannot easily be turned away as long as existing facilities and staff allow for expansion, otherwise one is creating a further social, political problem in a troubled land. What the University of Transkei needs to do, if possible, is to create a distance-education programme, that will allow qualified candidates to study in their home areas, having access to the resources of the main campus through study guides, visiting lecturers, mobile library services and radio lectures.

BACKGROUND TO THE UNIVERSITY OF TRANSKEI

The University of Transkei began operations in 1976 in Umtata as a branch of the University of Fort Hare with 132 part-time students, all of them in the Faculty of Arts. In 1977, with Transkei's independence, UNITRA became an autonomous body with its own Council and Senate, and 1978 saw the development of further Faculties with the introduction of Science and

Economic Sciences, followed in 1979 with an independent Law Faculty and a Faculty of Education. Housed in temporary buildings for its first four years of existence, UNITRA offered tuition in the evenings (except for Science) to part-time students.

In 1980, the present campus was opened and for the first time classes were given in both the day and evening in the Faculties of Arts, Education and Economic Sciences. Science remained a daytime Faculty because of its laboratory requirement, while Law operated - and continues to function - only in the evenings. A sixth Faculty - Medicine and Health Sciences - was inaugurated in 1985.

This year the University has almost 3 700 students enrolled at its Umtata campus, with about 300 more at Butterworth. Because of the dispute because Ciskei and Transkei, many Fort Hare students have come over to UNITRA and the increase in enrollment over 1986 is more than 20%, straining the facilities even with the opening of a new teaching block. The student population is evenly divided between morning and evening, and UNITRA continues to assist those already employed to upgrade skills and qualifications. At the May, 1987 graduation ceremony, more than 400 degrees and diplomas will be conferred.

Arts remains the largest Faculty both in enrollment and degrees with over one-third of the University total (1300 candidates in 1987), followed by Economic Sciences, Education and Law. Limited by laboratory space, Science has over 300 students and will only expand when the extensions to the laboratories are completed in 1989-1990.

THE GEOGRAPHY OF TRANSKEI

The overwhelming majority of students at the University either come from homes in the area or have continuing family connections in Transkei. Until 1984, there was an open admissions policy and many students were sent by their families to UNITRA because of on-going boycotts at the Universities of Zululand, Fort Hare and the North. With the severe disruptions of 1984 from May through September,

followed by disturbances in 1985 and 1986, the external numbers dwindled. Prior to 1986, the Transkei Department of the Interior had been content to let the University apply for study permits for non-Transkei residents after their registration; since 1986, the Department has required all non-Transkeians to obtain permits beforehand. While UNITRA's policy is still open admission - subject only to available places being given priority to local students - the outside students constitute a small minority.

Thus, UNITRA functions almost exclusively as a regional university and any plans for expansion into distance-teaching may be based on local conditions and accessibility to suitable sites for teaching centres. Transkei's major national highway, the N2, runs from Pietermaritzburg in the North to East London in the South, and there is tarred access to potential centres such as Matatiele, Qumbu and Butterworth on this route. The R 61 runs West to Engcobo and allows tarred connections to Queenstown, Cala and Bensonvale (near Sterkspruit). Lusikisiki is to the East off the Port St. John's highway, which is only partially tarred.

The travelling distances from Umtata to such centres are as follows:-

A. NORTH

- | | | |
|--------------|---|--------|
| 1. Matatiele | : | 255 km |
| 2. Qumbu | : | 60 km |

B. SOUTH

- | | | |
|----------------|---|--------|
| 1. Butterworth | : | 120 km |
|----------------|---|--------|

C. WEST

- | | | |
|----------------|---|--------|
| 1. Engcobo | : | 85 km |
| 2. Cala | : | 145 km |
| 3. Queenstown | : | 235 km |
| 4. Sterkspruit | : | 310 km |

D. EAST

- | | | |
|---------------|---|--------|
| 1. Lusikisiki | : | 120 km |
|---------------|---|--------|

A total of eight centres, six of which have existing teacher-training colleges either in or near them, would provide effective geographical coverage for much of the country.

If additional centres were created at Bizana (240 km in Northeast), and Umzimkulu (260 km to the North), then the coverage would be nearly total in terms of highway systems. At the present time, the maximum distance attempted by a few, dedicated evening students is about 85 km (a round-trip of 170 km per visit) with all the attendant dangers of animals, fog and inclement weather. What usually happens is that prospective part-time students not resident in either Umtata or Butterworth, nor within easy driving range, seek transfers to these areas.

STUDENT AND HUMAN RESOURCES IN TRANSKEI

The Research Institute for Education Planning (RIEP) at the University of the Orange Free State, released a report titled Education and Manpower Production (Blacks) No. 5, 1984 (Vermaak et alia, 1985); The student enrollment for 1984 in Transkei was 846,770, a 15% increase over the figure for 1980. In fact, the number of pupils in Transkei schools was nearly 15% of the total of black students for all of South Africa, territories and independent homelands. Forecasts for 1989 suggest a total number near to 1,100,000 students. At the top end of the Secondary educational pyramid, the matriculation year, approximately 11,100 candidates qualified to write the examinations in 1984, of whom 1136 achieved matric exemption and 3169 school-leaving certificates in Transkei. Some of those with certificates will have already applied for mature-age exemption in order to study at UNITRA, the average age of the black matriculants being two or three years greater than their white counterparts (for reasons outside the immediate scope of this paper). A projection for 1989, based a 30% increase over 1984, suggests that 1 500 candidates with matric exemptions and 4 100 pupils with school-leaving certificates will be leaving the secondary school system. While Transkei students are free to apply for registration at any Southern African University, most will come to UNITRA if possible.

The Policy Speech of the Department of Education in Transkei given in the National Assembly in 1984 pinpointed the phenomenal growth in Secondary Schools in the period 1979 - 1984, with an increase of 78 such schools from 110 to 188. These schools, which teach Standards 8, 9 and 10, had a student population of over 47,000 in 1984. Committed to providing education for all, Transkei presented a budget of R148 million for education in 1984, this in a country where education is not yet compulsory, where school fees are still payable as a necessary financial back-up, and where half of all pupils entering the system at Sub-Standard A leave before obtaining a Standard 3 education. The Department struggles to keep pace with the demand for new schools and teachers.

In an address to the UNITRA faculty in 1983, the then Vice-Principal and now Principal, Professor Wiseman Nkuhlu, quoted statistics given to him by the Department of Education: of approximately 17,000 teachers in Transkei at all levels in 1982, less than 60 had a B A in English and, equally disturbing, less than 60 had a B Sc in Mathematics. These figures include expatriate teachers. Since English is the language of instruction from Standard 3 onwards, and basic skills in numeracy along with literacy form the basis for educational development, Transkei is in a desperate situation. The need for well-qualified teachers is acute, and graduates in English and Mathematics quickly rise to departmental headships, often within two years of obtaining their Higher Diplomas. Since educational qualifications are recognized within South Africa proper, there is also an outflow. In 1986, only twelve candidates at UNITRA were successful in completing their third-year studies in English, and in 1987, there are 25 candidates of whom 20 may qualify. The figures for Mathematics in 1987 show a total of 27 students, many of whom may opt for industrial employment rather than teaching if successful in their course. The figures indicate that the upgrading of teacher qualifications, particularly in subject courses, should be a priority for the University of Transkei. There must be

a service provided for both matriculants and for those with preliminary teaching diplomas who are already in the schools. And while English and Mathematics require an intensive programme, all other subjects from mother-tongue through commercial and science subjects need a massive injection. The Molteno Project, for example, has pinpointed early proficiency in mother-tongue as a necessary prerequisite for the successful introduction of a second language and in Transkei the ideal situation would be primary teachers with a B A in Xhosa and appropriate teaching qualifications and remuneration. Unfortunately, in a third-world situation, this will be a long way in the future. What is required for any post-secondary training is a well developed primary and secondary education system with highly motivated and well-qualified staff. Only from such a system can then come effectively trained graduates in law, commerce and the professions.

DISTANCE EDUCATION IN TRANSKEI

1. If the teacher training colleges are to be used as centres for distance education in Transkei - and selected secondary institutions where necessary - then the North-South axis from Butterworth to Matatiele (or Butterworth to Umzimkulu) would involve a distance of approximately 400 kilometres, while an East-West axis from Sterkspruit to Lusikisiki would be 430 kilometres. Such calculations are necessary in determining the nature of supply services - logistical support - with the Umtata campus serving as the base for central library, staff and ancillary services. For the most part, the roads are tarred, and the longest time to any one centre (with Sterkspruit the farthest from Umtata at 310 kilometres) is under four hours of normal driving conditions. This should not presuppose a daily transport service, but no single centre would be longer, as a round trip, than an easy day's drive.

2. Each centre would require a university appointed, academic-cum-administrator to serve as both an assistant registrar and director of studies, co-ordinating the programmes for the district, programmes which would change yearly. This registrar/director would be responsible for, inter alia, liaison with UNITRA's Student Registration Office for the initial processes of enrolling eligible candidates; the collection of tuition and associated fees; the distribution, collecting and returning of assignments; the lodging/board of lecturers from the central campus on block-teaching visits to the centre; the library and the bookshop services and all associated teaching aids; and liaison with local government agencies for the effective co-ordination of university services.
3. At the UNITRA campus would be based the following services:
- (i) a large transport section, including vehicles for transporting lecture teams, mobile library services, audio-visual and computer services, bookshop and stationery supplies;
 - (ii) the lecture teams themselves who would prepare the course materials so that each distance centre student received the exact same study aids;
 - (iii) the central administrative services under the direction of a UNITRA Vice-Principal, with sole overall responsibility for the distance teaching programmes, thereby giving a single head to a multi-faculty approach;
 - (iv) the main library service, distributing secondary material as selected by the lecturers of a particular course in any one year to the Centres concerned;
 - (v) the UNITRA bookstore as distribution centre for primary material (using possibly, a system whereby the costs of a course at a distance centre would include all texts as a package deal);

- (vi) the Bureau For Academic Support Services for audio-visual equipment and programmes as well as the essential student guidance support.
4. Supporting roles should be encouraged, especially media participation. Radio Transkei would be an essential component of distance education, reaching out as it does to all parts of the country. Early morning programmes by lecturers (as successfully used by English Department lecturers in 1985 to assist Standard 8 pupils with their Syllabus) would complement the block teaching and course material available at individual centres. Students at such centres would have to be motivated for independent study, perhaps in a pre-entry workshop conducted by the Student Guidance Counsellors on radio. Equally important, although with a distribution limited to towns, is the newspaper service (the Daily Dispatch) based in East London. Educational supplements throughout the academic year could be a major component in helping candidates with their course of studies.

COURSE OFFERINGS

1. Distance education cannot ever compete fully with the services of a central university, and for this reason this paper proposes that the Umtata campus becomes more and more a base for senior students who have passed a required number of first-year courses and who have thus proven themselves as being able to cope with advanced studies. This implies that both the University and the education authorities in Transkei will have to create the necessary financial structures to allow senior candidates leave of absence to complete their degrees, either from the second year or, less effectively, for the final year:
- If, for example, a student at a distance centre intending to study for a B A degree in teaching subjects were required to complete first-year courses in five

subjects, that student could enter an accelerated programme at Unitra to finish two majors and an ancillary in an 18 month programme.

Such a student, if a primary school teacher, would be granted leave with pay, and a bursary covering tuition, residence and books at the Umtata campus for a set period. His/her "repayment" would be a stipulated length of service with the Department of Education.

2. A number of courses cannot be offered easily at distance centres. For example, courses requiring laboratory work may be impossible unless there are adequate facilities at the teacher training colleges, nor may it prove cost-effective to offer such subjects - except in select areas at specified times to a small number of students with proven scholastic abilities. Science subjects in particular are problematic for distance education, given the necessity for laboratory staff, expensive equipment and consumables. Most first-year courses are, however, eminently suitable for distance education (with some modifications) in the faculties of Arts, Education and Commerce. Priority would be given to teaching subjects and those Economic Science programmes most effective for business. The Faculty of Law could function equally effectively in giving preliminary courses for local magistrates and prosecutors, in addition to degree and diploma candidates. The major financial outlay would be library materials at the relevant centres.
3. The major difficulty is to be found in the selection of courses for each centre. UNITRA's senior management, given guidance by extensive research into an area's needs, would have to decide which courses would have priority; that is, which would be offered on a rotating basis year after year as a necessary adjunct to other studies. It seems obvious that English and Mathematics would be foremost. No one department, however, could be expected to service all centres in any one year;

the cost in staff would be prohibitive, and each new staff appointment in Umtata where housing is mostly limited to university-built accommodation requires a housing outlay of R60,000 per member at 1985 figures. Decisions would have to be made regarding rotation times and number of courses to be offered at any given centre in a particular year. It may prove most cost-effective to focus an individual department's or faculty's effort for an academic year in one area, say Northern Transkei, shifting the following year to Western Transkei. The B A (Education), B A (Law) and B Comm (Education) syllabi may be the most effective, particularly since the Arts programme allows for such a wide latitude in course selection.

CONCLUSION

If the University of Transkei is to fulfil its role as a national institution, and not simply as the University of Umtata - Butterworth, then it must expand its activities, and distance education seems the best way to do this. This paper has focused solely on existing course offerings as a preliminary look at possible expansion; in the Faculty of Education, programmes in Adult Education suggest a whole new dimension to UNITRA's future role in exploiting the human resources of Transkei.

Of equal importance is the cost factor. Inflation has skyrocketed the cost of building the lecture theatres, offices, laboratories, hostels and service buildings of a "fixed" university as in Umtata. Such monies would be better spent in creating a number of centres for distance education, bringing the University to the communities of Transkei and allowing as many as possible the opportunity of advancing their studies.

PERSPECTIVES ON THE ROLE OF DISTANCE EDUCATION IN A
CURRICULUM FOR CONTINUING PROFESSIONAL EDUCATION

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ABSTRACT

Continuing professional education is becoming of increasing importance and universities have to accept this responsibility. In this paper the approach is exploratory and analytical rather than empirical. A brief description of events which necessitate continuing professional education is given. The role of the university in continuing professional education is pointed out. Concepts which are used in the paper are outlined. Some viewpoints on continuing professional education and the adult learner are discussed. Traditional education and distance education are compared and the literature is analyzed to determine aspects of the state of the art. Some conclusions are drawn and a matrix for assessing the potential of "traditional" teaching and distance education for continuing professional education is presented.

PERSPECTIVES ON THE ROLE OF DISTANCE EDUCATION IN A CURRICULUM FOR CONTINUING PROFESSIONAL EDUCATION

"There is increasing concern in the professions about competence and accountability."

DUNN, 1985

1. INTRODUCTION

Continuing education for the professions has been part of the scene for a considerable period of time. However, this does not mean that professional people are making use of the opportunities created for them. DUNN (1985:283) reports that less than 20% of professional people in the U.K. make use of opportunities created for continuing professional education.

Various factors or events have necessitated continuing education for professionals. This has been reported on various occasions (KAPP, 1986:258). In summary the following can be repeated:

- * The information explosion which has led to more and more people experiencing a shortcoming in their knowledge/skills.
- * Technological changes which have led to various needs of professionals.
- * Pressure from the profession that the professional should keep up with the latest developments in his field and that he should continuously update his knowledge and skills.
- * The so-called lifelong curriculum which makes continuing professional education inevitable. COOPER (1977:138) pointed out that "... degrees and certificates should not be looked upon as an

'endresult' of an educational career but rather as steps and guided towards a process of lifelong education and lifelong career and personality development..."

For a number of reasons universities are in a very favourable position to accept responsibility for the continuing professional education of their graduate students. The reasons can be summarized as follows:

- * the university has to keep people informed of innovations and the creation of new knowledge or technology;
- * the university has, through its research function the ability to keep abreast of new knowledge and technological development;
- * the university should act as a clearinghouse for designing continuing education programmes;
- * as part of its research function universities should do research on aspects of adult education (andragogy);
- * part of the latter function should involve the education of trainers for continuing professional education;
- * universities should act as evaluators of continuing professional education programs by determining criteria for these programs and by setting an example as well as by providing a set of procedures;
- * the university should fulfill its radar function by keeping the vast scene of continuing professional education well lit.

Keeping in mind the factors which have necessitated continuing professional education and the university's distinct obligation regarding the continuing professional

education of its graduates, it may be that there are other avenues than the traditional in which universities can meet these needs.

2. DEFINITION OF CONCEPTS

In order to analyse the possible role of distance education in a curriculum for continuing professional education it is necessary to define key concepts that will be used in this paper.

2.1 Distance education

There seems to be a lack of unanimity on the terminology used in the field. KEEGAN (1980:13) reports that terminology such as correspondence study, home study, independent study, external studies, distance teaching and distance education are often used as representative of the same thing. There is also some confusion about the position of distance education within education as a whole.

HOLMBERG (1977:9) interprets the concept "distance education" as the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises but which, nevertheless, benefit from the planning, guidance and tuition of a tutorial organization.

PETERS (1973:206) defines distance teaching/education as a method of imparting knowledge, skills and attitudes which is rationalized by the application of division of labour and organizational principles as well as by the extensive use of technical media, especially for the purpose of reproducing high quality teaching material which makes it possible to

instruct great numbers of students at the same time wherever they live. It is an industrialized form of teaching and learning.

MOORE (1973: 664) views distance education as the family of instructional methods in which the teaching behaviours are executed apart from the learning behaviours, including those that in a contiguous situation would be performed in the learners' presence so that the communication between the teacher and the learner must be facilitated by print, electronic, mechanical or other devices.

WEDEMEYER (1977:2121), viewed by distance educators as the godfather of distance education, holds the following view: "In Europe the term 'distance education' has a usage somewhat comparable to that of 'independent study' in the United States. It is increasingly used in Europe as an omnibus term to include correspondence study, open learning, instruction by radio and television, in short, all learning/teaching arrangements that are not face to face.

KEEGAN (1980: 34) summarized the different perspectives on the nature of distance education by pointing out the following main elements:

- * separation of teacher and learner
- * influence of an educational organization
- * use of technical media
- * provision of two-way communication
- * possibility of occasional meetings
- * participation in an industrialized form of education.

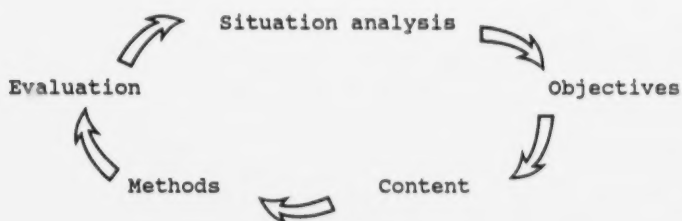
BÄÄTH (1981:217) had some criticism on KEEGAN'S (1980) views which may be important for this paper. He maintains that distance education need not be impersonal. "It seems to be

desirable that the author keeps an at least moderately personal tone, that he is sometimes even drastic and surprisingly and that he makes some use of his sense of humour in approaching the students through the distant medium." He calls this a "guided didactic conversation".

It seems as though distance education is controlled by technological rules (and not social norms), maintained by emotion-free language (and not interactional speech), based on a limited possibility of analyzing students' needs and giving them directions (not on expectations built on personal contact) and achieving its goal by efficiency (and not through personal interaction).

2.2 Curriculum

A curriculum refers to all the educational experiences which a student can encounter during his higher education career. This would then be based on a model for curriculum design which could consist of various aspects such as the model used by NICHOLLS (1978:21)



2.3 Continuing Professional Education

Continuing professional education refers to the provision of opportunities for qualified professionals to update their professional knowledge, skills and attitudes to enable them

to remain competent professionals. Gamble (1960), as cited by WILSON (1985: 17) initially defined this as "a lifelong program of systematic, sustained study" but in 1975 he describes continuing professional education as "An individual's personally designed learning programme developed with the help of colleagues to improve vocational competencies, which begins when formal education ends and continues throughout one's career and beyond. An unfolding process, it links together personal study and reflection, and participation in organized group events in related series of more-or-less organized events." (Gamble in WILSON, 1985:18).

LYON et al. (1982:56) adds another dimension to continuing professional education. "Continuing education should offer a second chance as well as an alternative route to educational qualifications".

WILLIAMS (1977:63) emphasizes the global view which can be enhanced by continuing education. "Underlying all those specific justifications of some kind of lifelong education is the belief that a learning society, a society whose members never cease to acquire, interpret, evaluate and use new knowledge and skills is simply better to live in than one in which it is generally considered that after adolescence it is not necessary or appropriate for most people to indulge in sustained mental effort."

3. SOME CONSIDERATIONS ON CONTINUING PROFESSIONAL EDUCATION AND THE ADULT LEARNER

3.1 Present practices under fire

DUNN et al. (1985:283) quotes the following criticism levelled at present continuing education programmes. Courses lack relevance to immediate needs. Approaches are too theoretical. The audience of learners are talked at rather than communicated with. The times and places where continuing education is presented, are unsuitable. Little attempt is made to cover topics systematically.

They (DUNN et al.) refer to societies' increasing concern with the sibling issues of competence and accountability in the professions. "When one talks of professional competence one is also implicitly speaking of continuing professional education, competence and continuing education, are symbiotically linked. A commitment to competence is an obligation to constant updating of knowledge and skills" (DUNN et al. 1985:278).

In order to do a proper needs analysis for continuing professional education it would be necessary to identify the areas where the profession as a group lacks in competence and thus determine the priorities for a programme of structured continuing education in the professions. These competencies can be decided in a number of ways. Five different approaches are mentioned but will not be discussed.

- * Subject centred/Theory based approach.
- * Task analysis
- * Delphi Technique
- * Critical incident survey.

* Behavioural event interview.

These five techniques can help to delineate, in explicit terms, the competencies an individual should have at the completion of an educational course. The competencies need to be decided before any course in continuing professional education can be programmed.

3.2 The adult learner

HOUGH (1984:7-8) quotes from Newton (1977) describing the adult learner as "an autonomous, experience laden, goal seeking, 'now' oriented, problem centred individual" and links this to distance education (Meyer, 1977) which "... allows the learner to select the content and processes of learning; content and process are based on individual needs and interests."

Before discussing possible ways of managing continuing professional education through distance education, it is essential to list some specific adult learner characteristics.

3.2.1 Learning strategies

- * it should tap some deep interest and need (felt needs)
- * it must restore the individual's confidence in his ability to learn (recognize the learner's self-concept)
- * it should be non-competitive
- * it should provide plenty of opportunity for fellowship (interpersonal relations)
- * it should be accompanied by the opportunity of counselling to assist learners to relate instruction

to personal needs (they must receive assistance in identifying their needs)

3.2.2 Learning situation characteristics

- * a supportive environment
- * the use of techniques that reinforce learning, e.g. tutors very clear as to learning expectations held
- * use of auditory and visual imagery in the presentation of information
- * self-pacing of learning (individualized)

3.2.3 Criteria for planning adult learning

- * it must be 'wholistic'.
- * it should have demonstrable consequences.
- * active participation and task or problem centred approaches improve learning.
- * continued learning by adults improves their learning effectiveness.
- * the adult learner is autonomous and may be sensitive about the learner role.
- * learning is made meaningful to adult learners by
 - dealing with their experiences
 - giving maximum insight into relationships
 - achieving the goals of the learner
- * adults may resist learning because of
 - conflict of new learning with ideas of previous learning
 - reluctance to change
 - learning involves risks

- * the status of the adult's teacher is an essential component of that teacher's task competence
 - * learning transfer occurs when adult capacities for using experience and generalizing experiences can be drawn upon.
- (HOUGH, 1984:7-25; WILSON, 1985:17-19, MCCLUSKY, 1975:120-121)

Thus to maximise adult learning requires a judicious selection of techniques which optimize the above characteristics and provide adults the maximum motivation to learn.

4. "TRADITIONAL" EDUCATION AND DISTANCE EDUCATION COMPARED

At this point a comparison between traditional forms of higher education and distance education could be of value.

Traditional

Teacher teaches.

Intersubjectivity automatically set up.

Management skills not as important.

Personalized.

Student dependence.

Distance

Institution teaches.

Lacks intersubjectivity.

Management skills e.g. lead times, deadline, print runs job schedules, delivery and despatch are important.

Can be depersonalised.

Student independence.

Receptive.

Participative.

Aimed at "post secondary"
student.

Aimed at more mature/adult
learners.

Residential.

Non-residential.

If this comparison is matched with some of the characteristics of the adult learner, it becomes clear that the latter four aspects of distance education are beneficial to a continuing professional education curriculum.

5. DISTANCE EDUCATION AND CONTINUING PROFESSIONAL EDUCATION
- SOME OBSERVATIONS FROM THE LITERATURE

In the professions one expects continuing professional education to be exercised. At the University of Stellenbosch continuing professional education is offered. The following faculties have been involved in dynamic continuing professional education programs over the past five years.

Medicine
Dentistry
Education
Commerce
Theology
Agricultural Sciences

Apart from the short courses offered by these faculties a number of post-graduate and diploma courses are offered in each of these faculties. The nature of most of these continuing professional education programs have been more related to 'traditional' courses, in other words they are mainly residential face-to-face courses. There are some of these continuing professional education programs that

utilize aspects of distance education to a limited degree, such as precourse reading material, assignments, practical work etc. There is, however, a lot of scope for increased application of aspects of distance education to all these fields of study. Some success with this type of approach has been reported overseas.

"During the past 25 years continuing education among religious professionals has proliferated from a minor influence to a highly developed force among Protestant Clergy. Organizations have been formed, research conducted, new forms of in-service training have been adopted and more and more clergy have become involved" (WILSON, 1985:17) He continues by referring to distance education as one of the 'new forms of in service training' that has been adopted.

The same appears to happen in management training. According to COOPER (1985:25): "Today's conditions require new strategies for management training which are relevant (to the individual, the organization and the economy), flexible (adaptable to needs, schedules and learning styles) and accessible (to all who can benefit from training)."

In management training each course is carefully planned to cover all the basic skills in the relevant area. Each is assessed and evaluated by a team comprising : experts from industry; other business schools; the relevant professions and trainers. All programmes will have passed through a series of validation exercises before release.

The draft contents are written by recognized experts. These basic materials are then transformed into a fully integrated multimedia course package for self-study (COOPER, 1985:27). The courses can also act as the building bricks to a full university masters degree.

These programmes have been evaluated very positively. "Many of the business schools who have exhibited initial scepticism are now recognising the power of the method and are starting to develop schemes of their own" (COOPER, 1985:28). They have realized that distance education can provide:

- practical programmes that link learning directly with work experience;
- flexible packages that can meet the differing needs and study patterns of most individuals and organizations;
- materials which can be used by trainers to complement and enhance existing programmes;
- massive cost savings over traditional methods;
- a uniform high standard of presentation which can easily be updated and amended;
- a means of providing an adequate level of general preparation which can make traditional methods more effective.

The same experience has been reported as far as training for industry is concerned. "Southtek and its training method and material has therefore been designed to fill this gap (the skills gap for operational, maintenance and technician people who are less and less able to cope with the new micro-processor technologies) (HEWITT et al. 1984:146)

It provides a very flexible system of 60 training packages, each of which can be taken separately, if required. Average study time for each package is 16 hours. Each package includes a workbook, illustrated with diagrams and photographs in colour, a practical book covering activities

to be carried out, often a practical "kit" specially designed, and audio - and video-cassettes.

These distance education courses are very popular and relevant because;

- they are based on current market research
- they are practically based
- they are designed to be attractive and motivating
- they make use of simple English
- the programme of packages is completely flexible with a "modular" structure
- the training packages can be used (almost) anywhere and at any time
- training packages can be sold in bulk (HEWITT et al, 1984:149)

The Open University reports that they have been using distance education with good effect in their training of tutors. (GIBBS, 1981:42-48).

"The absence of a 'trainer' is not only perfectly feasible, but warmly welcomed by tutors. Not only did all tutors manage to work through the module without a single request for additional advice or instructions, but the few constraints on tutor's freedom in both the use they made of material and in their evaluation of appropriate tutoring practices, were roundly criticized. No tutor wanted less freedom or flexibility. Not one tutor said that he would have preferred to have been 'told' about tutoring as a part of any exercise. The responsibility offered to tutors to organize themselves and to use their peers and their materials as they saw fit, was eagerly taken (GIBBS, 1981:46).

Gibbs concludes that face to face sessions, if used well, can have some special advantages to distance education. Their flexibility, and potential for responsiveness to needs as they arise, and their ability to foster interpersonal relationships, cannot easily be matched by distance methods. But as Open University and Unisa course materials have shown, distance education materials can be quite a reasonable substitute for conventional teaching methods.

Successful attempts with distance education as part of a continuing professional education programme have been reported in nursing education (FLOYD, 1982: 5-12; JOURNAL OF CONTINUING EDUCATION IN NURSING, 1983:37-41), faculty development (BARTAK, 1983:6-7) as well as supervising postgraduate students (PHILLIPS, 1983:23-31)

6. CONCLUSION

There are obviously not only positive aspects related to the possibilities of using distance education for part of the curriculum for continuing professional education. It is, however, essential to be very selective. In the attached matrix (Appendix A) the potential of 'traditional' and distance education for continuing professional education is assessed against an accepted set of criteria for planning adult learning.

This can be supplemented by referring to a number of important 'pedagogical functions' that a distant educator could possibly fulfill. He may play a principal part in the 'linking of learning materials to learning' - by trying to relate the learning material to each student's previous reinforcement patterns (Skinner) or to his 'mathemagenic activities' (Rothkopf), or to his previous knowledge and

'cognitive structure' (Ausubel) or to his previous comprehension of the basic concepts and principles of the curriculum (Bruner), or by concentrating on the task of establishing a good personal relationship with the learner (Rogers) (BÄÄTH, 1981:218).

There are a few probable barriers to the effective use of distance education in a curriculum for continuing professional education. These could be seen as warnings or "red lights" which need to be watched out for:

- * There will be a need to supplement distance education by face-to-face contact e.g. residential schools for skill/attitudinal/complex cognitive aspects.
- * Financial costs of techniques other than 'one to one' notes and A-V materials designed to transmit knowledge/understanding aspects.
- * Lack of technological alternatives that are economically feasible to implement, in institutions that combine face-to-face/off-campus teaching.
- * The design of a physical plant for distance education is quite different from that for a conventional system.
- * The lack of expertise in teaching staff as learning agents. A competent teacher in a conventional educational system will by no means necessarily turn out to be a good distant teacher; to a large extent, the skills which are required in the two kinds of teaching are different.
- * Distance teachers run a comparatively high risk of alienation.

- * Many adults vote with their feet i.e. they drop out, rather than criticize their subjects or courses.
- * In a distance system the student is responsible for his own learning to a considerably higher degree than in a conventional system.
- * Most adults who engage in distance education programmes are (at least initially) highly motivated to learn. In a sense, distance education has an elite student group, in motivational terms.

Although very little is still known about the role of distance education in a curriculum for continuing professional education, it has a promising future in the sense that it can provide learning opportunities for part of the curriculum. There is, however, still a long way ahead.

Faculties responsible for the initial academic training of professionals will have to give a lot of thought and eventually a fair amount of application to the potential of distance education in a curriculum for continuing professional education. It is imperative that universities should constantly look for more effective methods to gain maximum results from their instructional programmes.

Annexure A

MATRIX FOR ASSESSING THE POTENTIAL OF 'TRADITIONAL' TEACHING AND DISTANCE EDUCATION FOR CONTINUING PROFESSIONAL EDUCATION

The 'potential' is measured by using a 5-point scale with the following values :

- 5 = Yes, high probability. (High probability)
- 4 = Possible : but not without reservations
- 3 = Uncertain : some aspects possible, others impossible
- 2 = Difficult, too many limitations
- 1 = No, improbable (Low probability)

CRITERIA	TRADITIO- NAL	DISTANCE EDUCATION
1. <u>Learning strategies</u>		
1.1 Based on felt needs.	4	5
1.2 Restore individuals confidence.	3	4
1.3 Non-competitive.	3	5
1.4 Opportunity for fellowship.	5	2
1.5 Opportunity of counselling to relate instruction to personal needs.	4	3
2. <u>Learning situation characteristics</u>		
2.1 Supportive environment.	3	4
2.2 Use of techniques that reinforce learning.	4	4
2.3 Use of auditory and visual imagery in the presentation of information.	4	4

2.4 Self-pacing of learning (individualized)	3	5
3. <u>Planning criteria</u>		
3.1 Wholistic.	3	3
3.2 Demonstrable consequences.	3	4
3.3 Active participation and task or problem centred approaches.	3	5
3.4 Autonomy	3	5
3.5 Deals with experience/reality.	3	5
3.6 Maximum insight into relation- ships.	4	3
3.7 Achieves learner goals.	4	4
3.8 Absence of conflict of new learning with ideas of pre- vious learning.	3	4
3.9 Status of teacher/task com- petence.	3	4
3.10 Absence of risk involved.	3	5

BIBLIOGRAPHY

1. Bartak, L. 1983 : Do-it yourself Faculty Development for Continuing Education Instructors. Lifelong Learning : The Adult Years. Vol.6, no.6. pp. 6-7.
2. Bååth, J.A. 1981 : On the nature of distance education. Distance Education, Vol.2, no.2. pp. 212-219.
3. Cooper, A. 1985 : Distance learning and management education. Media in Education and Development. March, pp. 25-28
4. Dunn, W.R. & D.D. Hamilton 1985 : Competence-based Education and Distance Learning : a tandem for professional continuing education. Studies in Higher Education, Vol.10, no.3. pp. 277-287.
5. Floyd, G.J. 1982 : Qualities / Characteristics preferred in Continuing Education Instructors. Journal of Continuing Education in Nursing. Vol.13, no.3. pp.5-12.
6. Gibbs, G. 1981 : Training Tutors at a distance : an alternative strategy. Teaching at a distance, no.20. pp. 42-48.

7. Hewitt, C. & J. Cairns. 1984 : Catching up with technology - distance training for industry. Media in Education and Development, September. pp. 146-149.
8. Holmberg, B. 1977 : Distance Education : a survey and bibliography. London : Kogan Page.
9. Hough, M. 1984 : Motivation of Adults : implications of adult learning theories for distance education. Distance Education, Vol. 5, no.1. pp 7-23.
10. Kapp, C.A. 1986 : Die Rol van die Universiteit in Voortgesette Onderwys in Konferensiereferate, Voortreflikheid in Onderrig en Leer in Tersiêre Onderwys, 2-4 April. pp. 259-273.
11. Keegan, D.J. 1980 : On defining distance education. Distance Education. Vol.1, no.1. pp. 13-36
12. Lyon, E.S. & A. Turnbull, 1984 : Continuing Education and the quality of work. Higher Education review. Vol.14, no.3. pp. 56-64.
13. McClusky, H. 1974 : What research says about adult learning and teaching older adults in Smith, R. (ed.) Adult learning : issues and innovations. Illinois : Northern Illinois University. Information Series, no. 8.

14. Moore, M.G. 1973 : Toward a theory of independent learning and teaching. Journal of Higher Education. Vol.44, pp. 661-679.

15. Nicholls. 1978 : Developing a Curriculum. George Allen Unwin : London

16. Peters, O. 1973 : Die didaktische Struktur des Fernunterrichts. Untersuchungen zu einer industrialisierten Form des Lehrens und Lernens. Weinheim: Beltz.

17. Phillips, E.M. : Supervising Postgraduates at a distance. 1985 : Teaching at a distance. No.26. pp. 23-31

18. Wedemeyer, C.A. : Independent Study. In Knowles, M.S. 1977 : (ed.) The International Encyclopedia of Higher Education. Boston : CIMED

19. Williams, G. 1977 : Towards Life-long Education : A New Role for Higher Education Institutions. Unesco : Paris.

20. Wilson, F.R. 1985 : Continuing Education and the religious professional : 1960 to 1985. Lifelong learning, Vol.9, no.2. pp. 17-19.

RESPONSIBILITIES OF ACADEMIC STAFF

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1. INTRODUCTION

I have given myself the unenviable task of dealing with some broad issues in education which cover both normal and distance teaching at the tertiary level. My experience has been at a conventional university and I have no experience of distance teaching. The characteristics of the students from both sectors will, however, have much in common even though the distance learner faces additional and unique barriers to learning.

I intend to focus on a number of issues which will assist academic staff in improving their performance as teachers. These include some ideas of their perceived needs, a knowledge of some current theories on learning, on students and how we can foster innovation in teaching.

2. CHARACTERISTICS OF STAFF

Scheme 1 presents a profile of academics at my university.

SCHEME 1/...

SCHEME 1

PROFILE OF EXISTING ACADEMIC STAFF

- * they are selected for their subject expertise
(In many disciplines the minimum qualification to be considered for a lectureship is a doctorate, with some post-doctoral experience.)
- * they are expected to
 - prosecute research
 - teach effectively, and
 - contribute to administrationboth for confirmation and promotion
 - to participate in community service and/or professional societies
- * they are under extreme pressure from the day they are appointed.

As academic staff are under pressure from the day they assume their appointments, they need to be supported in their work by ancilliary services. At present Wits offers this in the field of :

provision of audio-visual aids
teaching skills
staff development.

I would like to add to this list

a knowledge of the students we teach.

This/ ...

This profile shows that our academic staff are expected to prosecute research and to teach effectively. As this conference is devoted to education, I will focus my attention on the teaching side of an academic's work. Much has been written about the interplay between teaching and research and I wish to cite only one source, a colleague Professor G C Gerrans¹, who found that staff in our Faculty of Science viewed the relationship between teaching and research as antagonistic, with teaching not being adequately rewarded. Teaching is a criterion for confirmation and appointment at my university and it was given a pre-eminent place in determining my lecturers' activities. Two of its goals² when it was initiated in 1980 were

- * to make all academic staff more effective in their role as teachers and
- * to provide the individual lecturer with more effective means for assessing good teaching performance.

The first of these goals or aims has been approached by offering workshops on a variety of aspects of teaching, such as -

The Teaching Role
Examinations
Small Group Work
Clinical Teaching
New Approaches to Teaching and Learning and
Teaching Less and Learning More.

These workshops extended over two or three days, involved extensive participation by the delegates and were generally well received. A total of 399 attendances at

the/...

the different workshops represents a significant proportion of the teaching staff at this University (899 at the time of writing). Allowing for the fact that some staff may have attended more than one workshop, these figures would indicate that 25 - 30% of the staff have shown serious concern about their teaching.

Staff who attended the 'Teaching Role' workshop are asked to indicate their teaching needs and the following Table lists those of the participants at the last workshop.

TABLE I TEACHING NEEDS OF NEWLY APPOINTED
ACADEMIC STAFF GIVEN IN RANK ORDER

<u>I t e m</u>	<u>Percentage of staff</u> <u>very interested</u>
1 Feedback from students	70
2 Lectures and Lecturing	70
3 Small group discussion	61
4 Tutorial work (problem solving)	53
5 How students learn	50
6 Use of handouts	37

Our second aim in regards to teaching is to provide staff with an opportunity for obtaining feedback from students³. The demand for this service continued to grow, as shown in Table 2.

TABLE 2/..

TABLE 2

STAFF SURVEYS CONDUCTED BY ASDEC

1982 - 1986

YEAR	TOTAL NUMBER OF SURVEYS	NUMBER OF STUDENT RESPONSES	NUMBER OF STAFF SURVEYED
1982	54	5 519	55
1983	83	7 102	91
1984	120	7 877	114
1985	218	11 116	152
1986	302	13 847	203

(These figures include all surveys of student opinion undertaken with the lecturers' consent - i.e. it includes Distinguished Teachers' Awards in the Faculties of Science, Commerce, Education and Medicine.)

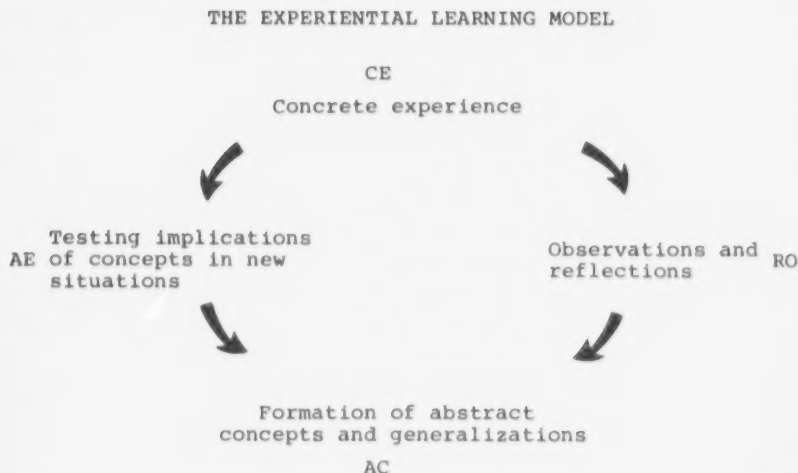
This data is given to show that academic staff do take their duties seriously and are concerned about improving their level of performance.

3. RECENT RESEARCH INTO TEACHING AND LEARNING

I wish to draw your attention to some recent research which indicates the complexities of the teaching/learning process and which could serve as models for research in this country. Research into learning styles is one of the current vogues and I am convinced that the work of David A Kolb⁴ will provide a useful basis for further research into this field. His approach is based on a four stage experiential learning model, presented in Figure 1.

FIGURE 1/...

FIGURE 1



Learning is conceived as a four-stage cycle.

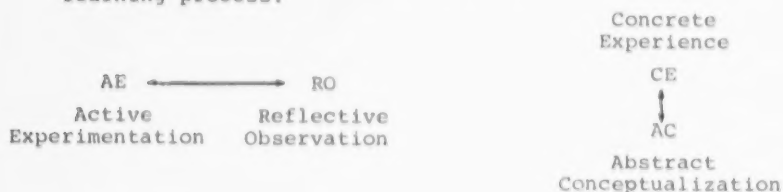
"Immediate concrete experience is the basis for observation and reflection. An individual uses these observations to build an idea, generalization or theory from which new implications for action can be deduced. These implications or hypotheses then serve as guides in acting to create new experiences."

Learners need four different kinds of abilities -

Concrete Experience	CE
Reflective Observation	RO
Abstract Conceptualization	AC and
Active Experimentation	AE.

This/...

This four-stage model involves abilities which are polar opposites, which are the two primary dimensions to the learning process.



Thus, in the process of learning, one moves through a number of phases, from actor to observer, from specific involvement to general analytical detachment.

Kolb has developed a learning style inventory (LSI)⁵ with the specific purpose of measuring differences in learning styles along these two dimensions. His findings are summarized in Table 3.

TABLE 3 **LEARNING STYLE INVENTORY CHARACTERISTICS**
BY COLLEGE MAJOR

<u>TYPE</u>	<u>CHARACTERISTICS</u>	<u>DOMINANT FEATURES</u>	<u>MAJORS</u>
Accommodators	Accommodators greatest strength lies in doing things and becoming involved in new experiences.	CE and AE	Business Education
Divergers	Their greatest strength lies in imaginative ability. It is characteristic of persons in the humanities.	CE and RO	History English Political Science
Assimilators	Their greatest strength lies in the ability to create theoretical modes.	AC and RO	Economics Mathematics Chemistry
Convergers	They do best when there is a single correct answer to a problem.	AC and AE	Engineers
			These/ ...

These rules were based on a study of the undergraduate majors of a large sample of 800 practicing managers and graduate students in management. His results are corroborated by the work of others, and by Kolb's further study of data collected by the Carnegie Commission on Higher Education in 1969 (they collected 32 963 questionnaires from graduate students in 158 institutions and 60 028 questionnaires from faculties in 303 institutions).

According to Kolb, we derive our predominant learning style from our particular past life experience, the demands of our present environment and our hereditary equipment. Some people develop minds that excel at assimilating disparate facts into coherent theories, whereas others may emphasize abstract concepts. Each of us develops a unique learning style, which has both strong and weak points.

A student's disposition not only influences his choice of subject area, but his resulting experiences further reinforce his disposition for later experiences. Kolb has shown that students who planned graduate study in their major field had learning styles more strongly biased towards the inquiry norms of their field than those who did not. For example, managerial students pursuing graduate study were predominantly accommodative, whilst potential mathematics graduate students were predominantly assimilative. Further, when the student's learning style corresponded with his subject area, the student indicated a greater commitment to his chosen career. His work would also suggest that motivation to learn may be the result of learning climates that match learning styles.

The/...

The second study I wish to consider is based on adult learners, in the field of management education, by Honey and Mumford^{6,7}. I believe that a study of how adults learn is a more appropriate model for university students than secondary school teaching. Alex Main⁸ has summarized the work of Honey and Mumford in the form of Table 4.

TABLE 4 CHARACTERISTICS OF DIFFERENT LEARNING STYLES

If your preference is for the following style	You will learn best from activities where	You will learn least from, and may react against activities where..
ACTIVIST	- there are new experiences/problems/opportunities from which to learn	- learning involves a passive role e.g. listening to lectures
REFLECTOR	- you are able to stand back from events and listen/observe	- you are forced into the lime-light , e.g. to act as chairman
THEORIST	- which is being offered as part of a system, model concept or theory	- you are pitched into using something without a context or apparent purpose
PRAGMATIST	- there is an obvious link between the subject matter and a problem	- organizers of the learning seem distant from reality e.g. "all chalk and talk"

This/...

This work is based on Kolb's LSI, but pays more attention to the question of learning styles. They postulate four basic learning styles which may occur in various combinations in any one individual. These are the

Activist
Reflector
Theorist and
Pragmatist styles

and they further suggest that individuals develop a preference for one of these. Table 4 gives one characteristic of each of the preferred styles and is presented as an example of the style mentioned. This data would suggest that different learners will have different expectations from courses they attend. This work also indicates that an *individual* learner will have developed a unique combination of skills, attitudes and approaches to learning and a knowledge of these will assist the learner in building on his strengths.

Where the learner's preference and the activity he is involved in involve the same style, he is likely to learn, whereas if there is a mismatch he is much less likely to learn.

According to Main, one of the important implications of Honey and Mumford's work is that it is the learners who set the pattern for what must be achieved - not the teachers or organizers.

Two challenges face us as a result of this work. We need to vary our tuition methods in an imaginative way to accommodate our learners' needs and we need to consider

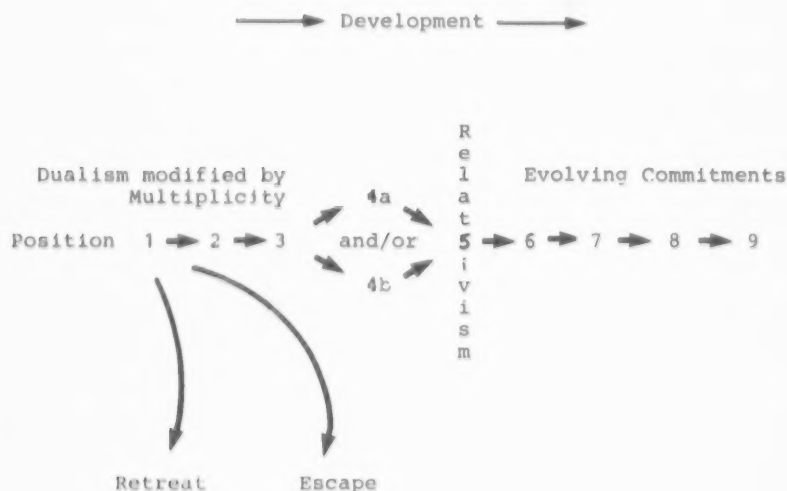
strategies/...

strategies which will involve the learners in choosing the tuition methods which best suit their different styles.

The third study I wish to share with you is the work of William G Perry Jr^{9,10}, who headed Harvard University's Bureau for Study Counsel for nearly forty years. Based on interviews with students, Perry and his associates proposed a development scheme, which is illustrated in diagrammatic form in Figure 2.

FIGURE 2

A MAP OF DEVELOPMENT



The first stage in Perry's scheme is *Dualism*. Perry defines dualism thus :

"Division/...

"Division of meaning into two realms - Good versus Bad, Right versus Wrong, etc. Right answers exist *somewhere* for every problem, and authorities know them. Right answers are to be memorized by hard work. Knowledge is quantitative"

Students in this position believe that if they do all the work required of them and learn all the Right answers, they will succeed.

The next stage can be embodied into *Multiplicism*

"Diversity of opinion and values is recognised as legitimate in areas in which right answers are not yet known. Opinion remains atomistic. No judgements can be made among them so 'every-one has a right to his own opinion : no-one can be called wrong'".

The key transition in Perry's scheme is to achieve *Relativism*, which has the following characteristics :

"Diversity of opinion, values, and judgement derived from coherent sources, evidence, logics, systems and patterns allowing for analysis and comparison. Some opinions may be found worthless while there remain matters about which reasonable people will reasonably disagree. Knowledge is quantitative, dependent on contexts.

The final position is that of *Commitment*. An affirmation, choice or decision made in the awareness of Relativism.

Perry's/...

Perry's developmental scheme, in which each position both includes and transcends earlier ones, poses us with a dilemma because if a lecturer is in the final stage and the majority of his students are dualistic thinkers, he/she will have trouble in being understood by his class. Clearly, the challenge is to facilitate students' progression along this developmental scheme.

4. SOME CHARACTERISTICS OF OUR STUDENTS

One of my Centre's goals was to provide feedback to individual lecturers on their performance from their students. The questionnaire¹¹ used to obtain this information can also be used in the broader field of course evaluation, and we have conducted such surveys for the Science Students' Council, the Students' Representative Council and the Engineering Faculty, as well as for a number of departments.

I would like to consider some of the less satisfactory aspects of our lecture system as they highlight, in my opinion, one of the major faults of our courses at all South African universities. Responses to the questionnaire administered to classes used a Standard Likert Scale and then were scored as shown in Table 5.

TABLE 5/...

TABLE 5

BASIS OF SCORING ITEMS

Response	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
	(a)	(b)	(c)	(d)	(e)
Social Scientists	5	4	3	2	1
ASDEC'S score	10	7,5	5	2,5	0

The results which received a score of 6,25 or less - i.e. responses midway between b) and c) are deemed less than satisfactory and worthy of remedial action. Those dealing with the lecturer are given in Table 6.

TABLE 6

STUDENT CONCERNS ABOUT THEIR LECTURERS

D e t a i l s	Item Mean Score	Number of times used
1. The lecturer varies the mode of presentation.	5,95	63
2. The lecturer maintains my interest to the end of the lecture.	6,12	163
3. The lecturer gets feedback on student understanding of the subject.	6,18	139
4. The lecturer summarizes the main points of the lecture effectively.	6,21	129

The/...

The results given in Table 6 indicate areas in which our lecturers obviously need to improve. Items 1 and 2 show dissatisfaction with lecturer presentation. According to Moelwyn-Hughes and Orbell¹²,

"To deliver information is important, but to arouse the interest of the students is a *sine qua non* of any university study - the alternative is dull rote teaching. This aspect of university lecturing cries out for attention in an attempt to raise university studies above the dull, mundane, fact-forcing that some lecturers feel they are trapped into."

The pacing and closure of lectures also need to be improved.

"Far too many lecturers start a lecture at a certain point and then pursue the topic inexorably until time, rather than appropriateness, dictates where the end is. The result is that many students leave the lecture room missing the vital element of *fixation* (of the key message of the lecture) that a few well-spent and well planned minutes might bring. The danger of loss of *conceptual grasp* has to be weighed against the sacrifice of some *content*."

Quite coincidentally we also received data on student concerns which are not lecturer dependent¹² and which we present in summary form in Table 7.

TABLE 7/...

TABLE 7

PROBLEMS OF ORDINARY UNIVERSITY STUDENTS

Student concern was expressed in the following areas:

- * uncertainty of where they were going in a course;
- * concern over their progress;
- * the feeling that they were being crowded and pushed too hard;
- * there was insufficient relevance to many of the courses.

These concerns are more a matter for departmental, than for lecturer, attention.

Implicit in both these sets of criticisms is the idea that the curriculum is overloaded with content. With the exponential rise in knowledge in most disciplines we have to face the dilemma of presenting relevant and up-to-date curricula without swamping our students with too much content. A corollary of this trend is review our curricula in the light of Beard's higher order skills such as

SCHEME 2/..

SCHEME 2

University teaching in general should enable the students -

- to write coherently
- to be verbally articulate
- to make their own independent judgements
- to think creatively, imaginatively and in abstract terms
- to develop adaptability.

An aim in university teaching is to foster in the student

- * enthusiasm for learning
- * awareness of moral, social, economic, political and scientific problems of society
- * questioning and enquiring approaches to knowledge.

Addressing issues such as these in a conventional university are no simple matter, but they are also of import and relevance in distance teaching. At a recent workshop held for heads of departments in our Faculties of Science and Engineering, the aims expressed above were accepted but in most cases it was agreed that we were not achieving them in our undergraduate curricula.

5. HOW TO ENCOURAGE INNOVATION IN TEACHING

Professor Gerrans¹⁴ has considered in some detail factors which inhibit staff devoting their time and energies to their teaching function. One is the staff's perception that research is more important than teaching, but a

more/....

more significant factor is recognition by the employing institution that improving one's teaching function is a legitimate "*scholarly activity*" which contributes to a lecturer's claim for confirmation and later promotion. The launching of the new S A Journal of Higher Education by the Committee of University Principals should provide the ideal mechanism for legitimizing such activities. The reporting of curricula and teaching innovations in articles can only enhance the status of such work and should be strongly encouraged.

The universities also need to review their administrative structures as the rather cumbersome hierarchical structure of department, subject committee, faculty board and senate is sufficiently daunting to curb the enthusiasm of the most zealous reformer. Academic staff should also realize that they have must latitude within the existing structures to try out new techniques. They do, however, need to receive official support for their endeavours , otherwise they have to face strong inertial pressure to retain the status quo.

A further inhibiting factor referred to by Professor Gerrans¹⁴ is that we only have confidence in teaching using the methods we encountered as students. If, as he advocates, we change the emphasis from teacher to learner-directed, then we have a major task in retraining existing staff in gaining confidence in alternative methods of teaching such as peer group learning or the use of microcomputers in the field of education.

I think many of you will agree that innovation in teaching at university level is easier to introduce in a new university. I was privileged to hear Lord Perry of

Walton/...

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Walton¹⁵, the first Vice-Chancellor of the Open University in the United Kingdom at a recent Improving University Teaching Conference in Heidelberg. He was the father of the *course team*, a group of subject specialists in one discipline supported by colleagues from cognate disciplines as well as instructional designers and educational technologists. The head of this team, who was not necessarily the academic head of the department, was responsible directly to the Vice-Chancellor for the academic quality of the course, for ensuring it was produced on time and within budget.

Lord Perry's reason for this approach will appeal to you, as his view of professors was that they were autocratic (what the professor said was law), concerned primarily with his research, and training the next generation of students in his own image.

"This could be absolutely splendid for what Eric Ashby described as 'the thin clear stream of excellence' among the students. But most students are not in that stream but in the broad sluggish muddy river of mediocrity - and for them the teaching was neither interesting nor permanent."

The introduction of such a drastically different system was not without its problems. Lord Perry recalled a meeting in 1970 with one of the professors, who looked rather depressed. The professor had been sent away by the course team, of which he was *not* Chairman, but *was* the senior academic member, to rewrite his module for the seventh time. "The really astonishing thing was that he was going to do it!"

6. CONCLUSION/...

6. CONCLUSION

I hope that my address has pointed out some directions in which tertiary education is likely to move in the future and some strategies which will accelerate the pace of much needed change in our university system.

6. REFERENCES

1. Gerrans, G C (1986), First Papers of the Committee on Teaching, Faculty of Science, *Monographs*, University of the Witwatersrand, Johannesburg.
2. Moelwyn-Hughes, J T (1986). 'Professional Development of Academics: fashionable fad or responsible innovation?' *S. Afri. J. Sci.*, 82, 543.
3. Moelwyn-Hughes, J T and Orbell, S F W (1986). Improving Lecturer Performance: Evaluation as a basis for individual counselling. *Improving University Teaching, Heidelberg, Germany*. pp. 437-445.
4. Kolb, David A (1981). Learning Styles and Disciplinary Differences, *The Modern American College*, Arthur W Chickering and Associates (eds), Jossey Bass, San Francisco.
5. Kolb, David A (1976). *The learning Style Inventory : Technical Manual*, McBer, Boston.
6. Honey, P & Mumford, A (1982). *The Manual of Learning Styles*, Maidenhead, Honey.
7. Honey, P & Mumford, A (1983). *Using Your Learning Styles*, Maidenhead, Honey.
8. Main, Alex (1985). *Educational Staff Development*, Croom Helm, Beckenham.
9. Perry, W G Jr (1970). *Forms of Intellectual and Ethical Development in the College Years: A Scheme*, Holt, Rinehart and Winston, New York.
10. Perry, W G Jr (1981). Cognitive and Ethical Growth: The Making of Meaning. *The Modern American College*, Arthur W Chickering and Associates (eds). Jossey Bass, San Francisco.

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11. Moelwyn-Hughes, J T and Orbell, S F W. (1985) Paper on Review of ASDEC Surveys: 1983 - 1985, *Mimeograph*, University of the Witwatersrand, Johannesburg.
12. Moelwyn-Hughes, J T (1986). The Role of Academic Staff in Academic Support Programmes, *ASP Conference*, Pietermaritzburg, December 1986.
13. Beard, R. *Teaching and Learning in Higher Education*, Penguin, 2nd ed. 1972.
14. Gerrans, G C. Memorandum on Some Aspects of University Teaching and Learning. *Mimeograph*, University of the Witwatersrand, Johannesburg.
15. Perry, W. (1986) Distance Learning and University Teaching, *Proceedings of the 12th International Conference of University Teaching*, Heidelberg, Germany, July 15-18 1986.

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Potchefstroom University for Christian
Higher Education

1. INTRODUCTION

In 1976 a survey with the emphasis on the teaching-learning situation at the university was conducted at the Potchefstroom University for Christian Higher Education. As part of the survey 2 516 undergraduate students completed a questionnaire.

As a result of the survey several recommendations were accepted by Senate. Some of these recommendations were that study guides should be made available in all courses, that students should be tested on a more regular basis and that teaching staff could use contact periods as they think fit. In many cases this led to less formal contact time between students and lecturing staff.

In 1986 another survey was conducted. This time 1 124 undergraduate students completed a questionnaire. One of the purposes of the 1986 survey was to see what changes took place in the teaching-learning situation in the past decade.

In this paper special consideration will be given to some aspects of independent study by undergraduate students.

2. STUDY GUIDES

Respondents were asked to indicate the percentage of courses they attended in which study guides were available. Most of the courses at the PU for CHE are semester courses.

TABLE 1

Availability of study guides in courses attended by respondents

Percentage study guides available	1st year students	Senior under- graduates	Total
100	26,2	19,2	21,3
80	41,2	37,2	38,7
60	20,3	22,2	21,4
40	6,5	13,1	11,0
20	5,2	7,2	6,5
0	0,6	1,0	1,0

It is clear from table 1 that study guides were available in most cases.

Respondents were also asked if they were in possession of at least one study guide that actually gave guidance to their studies and which they used on a regular basis. Of the first year students 80% answered in the affirmative and 75% of the senior undergraduate students did likewise.

It is clear that in one decade the concept of study guides became a familiar one and that it is used to a wide extent.

It was also found that students in the hostels made more use of their fellow students than study guides for assistance in their studies. Students who were living with their parents or on their own on the other hand got more help from their guides than from their peers.

3. PROBLEMS ENCOUNTERED IN THE TEACHING SITUATION

A list of problems that could be encountered in the teaching-learning situation were presented to the respondents and they were asked to choose the one that represents the single biggest problem.

TABLE 2

Single biggest problem encountered in the teaching-learning situation

Problem	1st year students	Senior undergraduates	Total
Amount of work	28,9	35,1	33,2
Degree of difficulty	10,8	6,9	8,1
English textbooks	19,4	11,1	13,7
Quality of teaching	6,5	14,3	11,8
Availability of textbooks	0,6	2,2	1,6
Test and examination timetable	7,7	10,5	9,6
No specific problem	26,2	19,9	21,9

From table 2 it is clear that the amount of work is by far the biggest problem in the teaching-learning situation. It is also clear from table 2 that, in general, students don't have problems with the degree of difficulty of their academic work. This emphasises the fact that students

want more time available for studying instead of hours of guidance from their lecturer.

One can argue that this could be the case in some faculties, but that in other faculties the students need much more direct contact with their lecturer because of the complexity of the academic work. Table 3 however clearly shows that although there are differences between the faculties in this regard, the amount of work overshadows the complexity of the work in all the faculties.

TABLE 3

The biggest single problem in the teaching-learning situation: faculty wise

Problem	Arts	Science	EMS*	Law	Eng*	Pharm*
Amount of work	20,6	28,8	19,1	26,9	44,4	53,3
Degree of difficulty	3,9	13,8	9,1	9,2	11,1	8,2
English textbooks	17,1	16,3	17,3	21,0	3,6	6,6
Quality of instruction	12,5	8,8	18,2	2,8	14,8	14,1
Availability of textbooks	3,2	2,5	0,9	-	11,1	-
Test and examination time-table	14,6	9,4	12,7	8,4	3,7	4,4
No specific problem	28,1	20,6	22,6	31,9	11,1	13,5

* EMS : Economic and Management Sciences

* Eng : Engineering

* Pharm : Pharmacy

4. INDEPENDENT STUDY

In 1976 66% of the respondents stated that they could just as well have mastered more than 50% of the work done in class on their own. As a result of staff development over the past decade at the University of Potchefstroom one could expect that this percentage would drop considerably since more independent study is now expected of the students than was the case in 1976.

TABLE 4

Percentage of the work done in class which could just as well have been studied independently

Percentage work	First year students	Other under= graduates	Total
100	3,1	6,6	5,5
80	28,8	30,5	29,1
60	35,3	35,1	35,2
40	21,1	21,3	21,1
20	10,5	6,5	7,9
0	1,2	0,1	1,5

Table 4 shows clearly that much more work could be left to the students to be done independently. The difference between first year students and other undergraduate students in this respect is minimal.

TABLE 5

Percentage of work done in class that could just as well have been done by students on their own: faculty wise

Percentage	Arts	Science	EMS *	Law	Eng *	Pharm*
100	6,1	3,8	5,5	4,2	0	7,0
80	29,6	22,0	29,1	26,1	39,3	35,2
60	35,7	40,3	40,0	37,8	46,4	28,9
40	20,7	22,6	18,2	19,3	14,3	21,9
20	7,5	10,1	7,3	11,8	0	6,7
0	0,4	1,3	0	0,8	0	0,3

*EMS : Economic and Management Sciences

*Eng : Engineering

*Pharm : Pharmacy

The difference between the various faculties is very small and there is a need for much more independent work in every faculty. The availability of study guides at the residential university makes the student much more independent of the actions of his lecturer.

One could conclude that since the students claim that they could do much more work on their own, that all the work that is done in class is well understood. Table 6 clearly shows the contrary.

TABLE 6

The percentage work done in class that is not understood, but which is understood when studied independently

Percentage work	First year students	Senior under= graduates	Total
80	11,2	13,7	12,8
60	28,5	25,6	26,6
40	31,9	31,1	31,5
20	25,4	26,5	26,0
0	3,1	3,2	3,1

Since lecturing is the dominant teaching method one could question its value. Table 6 clearly stresses the necessity for enough time for independent study. Knowledge cannot be given to the students, they must obtain it themselves. Learning is an active process.

One could argue that the value of studying at the residential university is the close contact between lecturer and student. Respondents were asked to choose the percentage of lecturers who know their names.

TABLE 7

Percentage lecturing staff who know respondents' name

Percentage lecturing staff	First year students	Other under= graduate students	Total
0-10	56,3	41,2	45,9
11-20	13,9	11,6	12,4
21-30	8,0	7,4	7,5
31-45	4,3	6,4	5,8
46-60	5,9	10,7	9,3
61-80	7,1	10,6	9,6
81-100	4,6	12,1	9,6

Table 7 shows clearly the biggest majority of students think that only a small percentage of their lecturers know their names. It is hard to imagine that a student could feel that his lecturer is interested in his academic work and in him as a person if his perception is that the lecturer does not know his name.

5. CONCLUSION

Teaching media has developed to such an extent that many of the functions that the lecturer fulfilled in the past could be done by the correct use of various media.

This survey showed that some of the biggest value of a residential university lies in the fact that peers learn from each other and that the role of the lecturer in the direct contact situation is probably overestimated.

The differences between the residential university and the distance education university is becoming more and more extinct. The value of the residential university is not first and foremost the fact that students have direct contact with the lecturer but the direct availability of study materials and peers with whom problems can be discussed. That is not to say that the lecturer has not got an important role to play. On the contrary, the lecturer's role is a more distant one but he is the manager of the student's learning. What is changing is the way in which he manages the student's learning as a result of the availability of sophisticated teaching media.

DISTANCE EDUCATION IN DEVELOPING COUNTRIES: THE
ECOLOGY OF DEVELOPMENT OR THE NEED FOR CONTEXT
SENSITIVITY

Anton Muller
Human Sciences Research Council

1. INTRODUCTION

The phenomenon of development has many facets as it touches for its full realisation on so many sectors of society. Social (such as health and education), political and economic factors all play their part, often in isolation, but more desirably in unison to enable the development of a country. Particularly in Africa, educational provision is part and parcel of the approaches and ideologies of development (Le Roux 1982:189). In fact, education is but one factor - it can be claimed that there is an ecology of factors in development which the educationist could ignore, but only at his own peril.

In this paper, the point of focus will be the interplay between contextual factors which are inherent in the formal education sector and those contextual factors which emanate from society and which very often require the finding of additional channels of educational provision over and beyond the formal sector with which one is so very familiar. Many of the additional channels of educational provision result in the democratization of educational opportunity. One such channel is distance education.

In the context of this paper the need for context sensitivity in educational provision will be stressed.

It will not be possible to provide a complete list of all possible factors and the complex interplay or ecology between all these factors, as there are simply too many such factors and the interplay between these factors have often been misjudged as educationists, policy makers and economists have discovered to their own cost. Much of the literature on development issues has indicated that planning has been based on the experience of the industrialized Western countries. Much of the planning assistance to developing countries has faltered as patterns of association between development factors and employment and quality of life in the Western industrialized world have proven to be inadequate or even totally incorrect in the developing world.

There will be no attempt to address a particular facet, or institution, or level, or target group of distance education. The focus is on the context in which distance education takes place and on general issues of development. For this purpose the definition of distance education provided by Perraton (1982:4) will suffice: distance education "can be taken to mean an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner.

The field of distance education is undoubtedly hampered in its theory and practice due to the lack of a coherent theory and methodology of distance teaching (Mueller, Schneider, Schulz 1985:91-101). As distance education is more often than not presented by means of educational media, it is perhaps not surprising that research on distance education and educational media research both tend to neglect the importance of the

context in which it is to operate. It would seem that context variables should constantly be identified and accommodated sufficiently in theory, planning and practice.

2. THE CURRENT STATUS AND CONTRIBUTION OF DISTANCE EDUCATION IN THE RSA

It might be prudent to first state which institutions in the RSA are seen to fall within the context of the provision of distance teaching (Engelbrecht 1986:2):

- * University of South Africa (UNISA).
- * Vista.
- * Technikon RSA.
- * All in-service teacher training colleges in the RSA (three in all).
- * Technisa.
- * Correspondence colleges (67 in all).
- * SABC.

Regarding distance education in the RSA Du Plessis (in Engelbrecht 1986:6-7) provides an overview of the current contribution and status of distance education in the RSA:

- * In 1985 70 000 students were registered for primary and secondary courses at correspondence colleges. Of these 45 000 were black students .
- * A further 119 700 students obtained vocational and academic education at correspondence colleges.
- * As far as tertiary education is concerned, UNISA had 77 028 registered students in 1985 of which 17 820 were black students.
- * A total of 300 000 students were provided with

distance education of which two thirds were registered at correspondence colleges.

- * Technisa, Technikon RSA and the in-service teacher training colleges in the RSA still have relatively fewer students by comparison.
- * In the RSA there are 710 students per 100 000 of the population of 25 million involved in distance education. In Norway the figure is 5 000 and in Italy 150.
- * If the various population groups in the RSA are considered, the proportion of students involved in distance education per population group and per 100 000 of the population is:

Whites	1 800
Coloureds	550
Asians	660
Blacks	450

The total enrolment of students in distance education is 4% of the total enrolment of students in the formal school sector. If this number is considered in the context of the whole population, only 1,2% of the population is involved in distance education.

3. DEVELOPMENT AND EDUCATIONAL PROVISION

3.1 EDUCATIONAL PROBLEMS IN AFRICA

In Africa a number of contextual factors have contributed to the failure of the role of educational growth in the promotion of development (Le Roux 1982:193-196; Perraton 1982:3-4):

- (1) The colonial educational systems were maintained

- by newly independent African countries without regard for local needs and the local culture.
- (2) The curricula in African schools are not always adapted to reflect local circumstances.
 - (3) Students are trained for white collar jobs of which sufficient numbers cannot be created.
 - (4) The discrepancy between the availability of educational facilities in urban and rural areas is very prominent.
 - (5) High financial costs are attached to the provision of formal education. Many countries are spending far more on education than they can afford to the detriment of development in other sectors.
 - (6) The phenomenon of the brain drain is rampant, either from rural to urban areas, or from African countries to other countries where higher salaries can be earned further exacerbating the shortage of trained manpower.
 - (7) The occurrence of the qualification spiral or educational inflation (Dore in Le Roux 19823:195). Much emphasis is placed on formal education which results in large-scale unemployment among the highly educated due to a shortage of employment opportunities for these groups. When there is a surplus of persons with a certain qualification level, employers can expect unnecessarily high qualification levels which create the qualification spiral.
 - (8) There exists a double demand for schools and for adult education which puts a strain on the educational systems which few can bear. The growth in population outstrips the ability of the economy of the country to provide these educational facilities.

- (9) There is a high attrition rate in primary and secondary schools.
- (10) There is a search for alternative methods of education which can reach more people, or reach different people or do so more cheaply.
- (11) Job creation presents one of the big challenges for as the school-going population increases, so the need for employment opportunities becomes ever more urgent. In fact, the third development decade in Africa has as its aim the increase of employment opportunities, but also creating job opportunities which would provide sufficient income to maintain a better standard of living (Ligthelm 1981:310-311).

3.2 DEVELOPMENT SCENARIOS AND EDUCATION

In a recent article, Orkin (s.a.:3-5) sketches two positions regarding the mechanism of social and economic change. Each scenario also sketches the functioning of the educational system.

- (1) In the first scenario the mechanism of change involves modernisation. Less developed countries are considered to have large disparities between urban and rural communities. In essence, rural communities are fairly isolated from the changes in urban areas. The country industrialises in order to refine raw materials in the country itself which are exported in order to finance the purchase of manufactured goods and machines. In order to overcome these rural/urban disparities, developed countries are requested to provide the capital required for industrialisation. The other essential ingredient associated with the

process of modernisation is the educational system which must provide the trained manpower to sustain the growing industrialisation.

Two consequences can be discerned, one economic and one educational:

* The disheartening fact is that modernisation along these lines has not brought about the development it was thought it would. "The sorry fact is that no African countries have really achieved the industrial take-off necessary to diminish their dependence on imports, still less to repay the loans which were supposed to set the process in motion; and wealth has been singularly slow to trickle down. ... The problem in general is that developing countries have to achieve an urban-centered industrialisation fast enough to absorb the migration from their rapidly growing rural populations, yet in competition with the already well-established, efficient, mass-producing, export-orientated Western nations. Not surprisingly, they fail."

* Academic qualifications are sought feverishly as they receive high rewards in the job market. As there are many unemployed, academic qualifications are used as sifting mechanism whether relevant to a particular job or not.

(2) The second scenario has to do with the theory of dependency. In developing countries the flow of capital to the country is exceeded by the flow

of profits from the country. Multi-national companies receive an inordinately large share of investment capital. In the educational field many of the people in influential positions passed through the imported educational system prior to independence and respond more slowly to local needs.

Both the above scenarios illustrate clearly the difficulty of stimulating development in societies to the benefit of all, despite tremendous efforts in this regard through three development decades in Africa (Ligthelm 1981:308-309).

4. CONTEXTUAL FACTORS EMANATING FROM THE FORMAL EDUCATION SECTOR

There are contextual factors emanating from the formal education sector which tend to perpetuate and promote generalisation of the formal education sector. These factors are, amongst others:

- (1) The high value traditionally placed on formal education by the community.
- (2) Efforts within the formal education sector to extend facilities in an endeavour to keep up with the demand for formal education.
- (3) Via teacher training, curriculum development, and particularly certification and accreditation the formal education sector sets the norms by which other sectors will be judged and the norms to which they often will aspire. This helps create the pressures by which the formal sector extends its field of influence over other sectors which develop due to inadequacies in the formal sector.

The tendency emanating from the formal sector to formalise and perpetuate itself can often inhibit alternative forms of educational provision fully developing and exploiting its own unique characteristics and field of influence.

Furthermore, the expansion of educational opportunities in the developing world reveals in part the ecology of development and the interplay of sectors and factors beyond the sphere of formal education. The pressure of numbers is felt less in secondary schools than in primary schools. Yet, as primary school education expands students and their parents demand more secondary school places. As the economy further develops both employers and tertiary institutions demand better qualified students from the secondary school system. "The two sets of demands can conflict with each other: children struggling to get into secondary school are primarily interested in the number of school places, while employers and colleges or universities are at least as concerned with the quality of education offered in secondary school. There is, at least potentially, a conflict between the demand for quantity and the demand for quality" (Perraton 1982:14).

5. CONTEXTUAL FACTORS TO BE TAKEN INTO ACCOUNT IN AN ALTERNATIVE FORM OF EDUCATIONAL PROVISION SUCH AS DISTANCE EDUCATION

There are contextual factors which determine not only the emergence of an alternative form of educational provision such as distance education (that is, they determine the emergence and development of alternative

channels of educational provision), but also require consideration in determining the content provided by means of these alternative channels. A number of these contextual forces will be discussed with particular reference to distance education.

5.1 THE NATURE OF EDUCATION ITSELF

Education is by its very nature emancipatory. It creates higher levels of aspirations and expectations so that it becomes increasingly difficult to maintain the status quo.

5.2 THE IMPLEMENTATION OF AN ALTERNATIVE CHANNEL OF EDUCATIONAL PROVISION REQUIRES THE CREATION OF ITS OWN CONTEXT TO FUNCTION OPTIMALLY

There is a typical context which is created for distance teaching which would almost suggest that there is a characteristic methodology of distance teaching. The institution and those teaching there should develop new sensitivities. "This calls for not only the provision of a range of facilities to cater for individual learning styles and needs, but also a special understanding by academic staff of the possible psychological reactions of students to the conflicting pressures of employment, social needs, and family life" (Reid-Smith 1985:8). Many distance teaching institutions try to attract interest in their brochures presenting course information for intending students, but few provide information on what it is like to be an external student covering issues such as time management, motivation, finance and the family (in the case of mature students) (Riverina College in Roberts 1985:10,11).

Students should be introduced to the teaching methodology and study techniques could be discussed as well. In the preparation of course material and the structuring of the course, the lecturer could be served by having at his disposal background information on the student (at least age and previous experience at tertiary level). In this way the entrance level of the student can be assessed which in turn will determine the approach taken in the first study material and assignments.

The big challenge in distance teaching is the creation of a communication context in which the lecturer and student have contact; the lecturer to present the material relevant to a particular course; the student to receive feedback from the lecturer on the progress he is making, to receive on-line help while he is busy assimilating the course material. It is equally true that the interest and the attention of the student must be retained during his period of study (De Vito in Smit 1986:24). A communication context must be designed which will enable the lecturer to reach out to the student with possibly the aid of printed material, teleconferencing and radio paging.

In distance education the material provided not only structures the course, but must stimulate the student to activity so that he may learn (Perraton 1982:6). One of the inherent problems in this communication context is the fact that the needs of students cannot be addressed immediately as they arise. This communication context is serviced by means of study guides, study letters (where timing is particularly crucial), letters, or calls to the lecturer. Where

students require more personalized and individual help with courses, a system of tutors could be used (Einsiedel & Taylor 1985:15). "Tutors would be subject matter experts who may be employed fulltime in colleges and universities or in some other professional practice ..." (Einsiedel & Taylor 1985:15). They assist the student in his assignments and preparation for his final examination. They could even mark assignments and provide oral and written feedback. They could work with individual or small groups of students. The tutors would require orientation and training before being placed at the disposal of students.

Smit (1985:35) sees this context creation for distance teaching in two phases:

- (1) Realizing the principles of autodidactics in the study guides provided and augmenting study guides, where appropriate, with visual and auditory media.
- (2) Utilizing teleconferencing, feedback provided by means of follow-up study letters after tutorial discussions, audio-cassettes, telephone answering facilities, interviews, personnel development, instructional development seminars, circulation of subject literature and dissemination of information concerning new acquisitions by the library.

Course development for distance education should ideally take place in a context "where instructional design and evaluation has been built into the very structure of the programme, and is an inherent part of curriculum planning" (Knapper 1985:6).

This requires that feedback must be obtained from the student. What is required is two-directional feedback. The feedback of the lecturer promotes the understanding of the student, motivates and encourages him. Feedback from the student provides the lecturer with insight in the learning problems of students and assist in the provision of remediation. In this way the adequacy of the whole communication context can be assessed by the lecturer (Shore & Armstrong in Smit 1985:37).

Experience with instructional applications of technology have indicated the following (Morehouse in Kissock 1985:4-6):

- (1) The technology works well when carefully planned and implemented. "Planning, preparation, communication among participants, cooperation and other human relations are more troublesome" (Morehouse in Kissock 1985:4).
- (2) The people involved in a programme matter more to the success of the programme than the amount or sophistication of the hardware.
- (3) Technology creates a need for more technology. As certain needs are satisfied new ones arise requiring hardware and software.
- (4) Planning the system, instructional and organizational context is more important than technological planning.

In all, the learning situation should be a supportive environment, use techniques that support learning, use auditory and visual imagery in the presentation of information and provide for self-pacing in learning

(Hough in Roberts 1985:28).

5.3 THE CONTEXTUAL FACTOR OF EMPLOYMENT OPPORTUNITIES

The issue of employment opportunities becomes crucially important against the background of increased educational provision, rising aspirations and rising expectations. Bruce (1984:641) expresses the essence of this concern very succinctly: "Whatever the higher aims of educators, the clients of the education system have one simple expectation of it: they want it to help them obtain a job. Moreover, they want that job to be a good one - satisfying, socially valuable, in an agreeable environment, well-paid, and secure. Only if these expectations are met will they consider the less instrumental aims that educators hold dear." In Africa the problem is very acute as the number of educated unemployed grows annually (Le Roux 1982:194). Swain (1985:VII) mentions a set of criteria measuring young peoples' emergence into adulthood. They are work/jobs, income, education/training, status, support, choice and participation.

The importance of work is pointed out by Macarov (1985:629) as well: "There is no generally acceptable method of distributing society's resources other than through job-holding, but this instrumental aspect of work has been overlaid with other values to the point that the person who does not or will not work is seen as a 'sinner', a bad citizen, a poor patriot, and even as emotionally disturbed." The fact is that finding and providing jobs has become a major problem in the Western industrialized world and in all likelihood the problem will become worse (Macarov 1985:629).

Predicting the future is risky (Macarov 1985:630). The consequences of the problem should, however, not be underestimated (Macarov 1985:630): "Continuing attrition in the amount of human labour needed in the world is fraught with such serious socio-economic consequences that even if there is no unanimity that it will happen, the possibility demands discussion of methods of obviating or encouraging it ... and dealing with it should it occur."

Two major trends can be discerned at present (Macarov 1985:630-631):

- (1) The growth in productivity has quintupled during this century, not so much due to altered work patterns (contribution 10-25%), but due to the use of technology (contribution 75-90%).
- (2) Technology has reduced the amount of human labour used. During the past 100 years the amount of spare time of the working population has increased four to five times (Patruchev in Macarov 1985:631). The amount of paid leave has increased, entry to the labour force has become later due to longer times spent on education, and earlier retirement possibilities are increasing.

Since the beginning of recorded history, there has never been full employment in the sense of permanent, decent, well-paid jobs for everyone able and willing to work (Macarov 1985:632). Efforts to create more work include:

- * Reduction of working time.
- * Wage subsidies.

- * Tax cuts.
- * Public works projects.
- * Public service employment.
- * Training and retraining programmes.
- * National service programmes.
- * Encouragement of investment in labour intensive industries.
- * Financing the opening of businesses of the unemployed.

Yet, despite all these efforts the rate of unemployment continues to rise. "Efforts to explain unemployment away as simply 'structural', 'frictional', or 'cyclical' no longer suffice, while the term 'permanently unemployed' is being heard more often (Macarov 1985:632). Macarov (1985:634) also points out that the view that new technology creates new and different job opportunities does not hold. New machines require far less labour due to electronic components replacing any number of mechanical parts. An electronic cash register requires only 25% as much labour to produce than the previous version. Many new products supplant rather than augment existing ones (compact disks replace a series of earlier music reproduction methods; word processors replace typewriters). Newer products lend themselves to production by automation - computers can be manufactured at one every 27 seconds and labour costs can be as low as 1% of the total (Macarov 1985:634-635). The fact is that the phenomenon of technological unemployment is very real (Macarov 1985:636).

In the industrialised Western world there is not a shortage of trained personnel in the human services.

One third of the nurses in the United States are not working and one third are working only part time (Macarov 1985:635). In the developed world there is a surplus of professionals (teachers, doctors, lawyers, dentists , psychologists etc.) (Macarov 1985:635). This is one point at which the developing countries diverge from the developed countries.

In Europe it was believed that unemployment would be a temporary problem and that once the economies recovered after the recession of the second oil crisis, levels of unemployment would decrease. This has not taken place despite improvement in the European economies. Initially the school was blamed for unemployment, the charge being that schools had not prepared their pupils sufficiently for the world of work. "Today new voices are heard, criticizing schools for paying undue attention to the needs of employers and urging them to consider the implications of preparing their students for a world that will offer work to some and unwanted leisure to others (Bruce 1984:641).

In, for example, Belgium and Britain the problem of unemployment, particularly among young people, is addressed by providing work training to those intending to enter employment after the completion of the period of compulsory schooling. In Belgium the minimum school-leaving age has been raised from 14-18. Full-time attendance at school will not be required for the majority of students. "Formation en alternance" - college-based instruction alternating with instruction in the work place - will be offered to the majority, while those who succeed in obtaining apprenticeships may have these apprenticeships

recognized as fulfilling their educational obligations after age 16. In Britain, the Youth Training Scheme (YTS) provides an alternative to schooling, run by the Department of Employment and not by the Department of Education and Science. The YTS offers a year-long training programme for 16- to 17-year-olds which is largely based at the workplace. This experience could lead to a regular job.

The pertinence of these issues to distance education lies in the fact that it must be recognized not only that education or training is sought to facilitate employment opportunities (that is, certain aspirations are involved), but also that the future must be viewed very realistically regarding employment possibilities. Although it may be morally and politically right not only to democratize educational opportunity, but to structure these provisions in such a way as to provide a smoother transition from education/training to the workplace, there could be a price to pay as well.

"The more educational programmes are designed to prepare students for work, the greater the sense of failure for the individual student who remains unemployed. And if high unemployment is to be permanent, it is healthier for a society to recognize this fact and adjusts its values accordingly. Nothing would be gained by acting on the illusion (if such it is) that full employment will return" (Bruce 1984:642-643).

It would seem that the position of the young could further be complicated in gaining employment if the forecast of Moore is anything to go by. He states: "All in all, our society's fascination with youth is on the wane; a trend which is likely to continue up

to and beyond the year 2 000. Our greying but healthier population will lead to a shift in resources towards sustaining the elderly. What 'proper' jobs there will be are likely to go to the 'un-young', and progressively a great many young people will return to their position of economic and social weakness, similar to that experienced before and just after World War II (Moore 1985:II).

The extent to which employment/unemployment trends in the developed world will emerge in the developing world remains to be seen. However, the scenario presented and predicted may not be all that far-fetched in the developing world. Certainly the factor which makes these scenarios most likely are:

- * The rate of population growth in the third world.
- * Inappropriate educational provision, insufficient work programmes and vocational training.
- * First world aspirations regarding education and employment in a third world situation.
- * Insufficient generation of capital and profit to improve educational provision and stimulate job creation.
- * The dependency cycle which still applies to the developing nations vis-a-vis the developed nations, particularly regarding capital, technology, management skills and access to markets.

What makes these issues all very tricky to manage is expressed quite succinctly by Moore (1985:III): "One thing is for sure, the passing on of 'certainties' is behind us as we face the challenge of educating for the unknown." For most people income is mediated primarily through employment. "Thus, unless and until

there are alternative mechanisms for achieving adulthood and distributing income, the problem of unemployment has to be tackled" (Swain 1985:VII).

Watts (in Bruce 1984:643) presents four possible employment scenarios:

- * Present levels of unemployment continue and the present status of job work remains.
- * A leisure scenario in which technology further reduces opportunities for job work, creating a permanent leisure class with a guaranteed minimum income.
- * A scenario of employment which maintains the work ethic and manipulates employment opportunities by means of job sharing, early retirement, and job creation programs.
- * A scenario which redefines work to include a mixture of job work, self-employed freelance work, and gift work (work done free of charge for neighbours, the church etc.)

The last three scenarios will each require different skills from citizens, new attitudes to employment, jobs, leisure and service. Furthermore the connection between job and social status will have to be uncoupled.

These changes could require radically different educational programmes. "Whether constant reductions in the amount of human labour needed by society is a possibility, a probability or a certainty, the need to address the situation is not only clear but urgent. Marland has estimated that it requires 50 years for a new idea to be incorporated in educational curricula,

and consequently it is not too soon to begin examining a situation which, if it eventuates, will have profound influence on every aspect and structure of society" (Macarov 1985:638-639). One of the biggest problems is the fact that so many people refuse to even consider in planning for the technological era the possibility of such a development. "Otherwise objective academics and researchers have been known to become not only defensive, but offensive, in the face of data, trends, analogies and expert opinion concerning the future of work - positions they would never take on less emotional subjects" (Macarov 1985:639).

In South Africa the issues to deal with will not only involve unemployment, but underemployment as well (Bell 1984:47). In the RSA formal sector jobs have declined noticeably over the past ten years, making growth in the informal sector employment all the more important (Bell 1984:48). Also in South Africa the need for context sensitivity or the recognition of the ecology of development is known. The White Paper on a strategy for the creation of employment opportunities in the Republic of South Africa (Republic of South Africa 1984 in Bell 1984:49) recognizes that a free market system must be stimulated further, that geographical mobility of labour, occupational mobility, and informal sector activity may stimulate employment creation. Employment opportunities in South Africa are equally affected by foreign exchange markets and foreign trade (Bell 1984:51). The issue of employment in the RSA is very real. Simkins (in Bell 1984:5) estimated that in 1982 the unemployment rate in the RSA stood at 22,5%. "That there is in operation a persistent tendency for the unemployment

rate to rise, which is likely to continue into the future, is also suggested by a recent Human Sciences Research Council study in which it was estimated that in the period 1980-1985 the labour force would increase at a rate of 290 000 per annum compared with an estimated rate of growth of the demand for labour of 134 000 jobs per annum, based on a rate of growth of GDP of some 4.5 per cent per annum " (Bell 1984:6). These trends are indeed consistent with trends in the world economy as a whole (Bell 1984:8).

The matter need not be dwelt on, but the question remains as to what the appropriate response with regard to educational provision should be. In the developing world and in the RSA many hard choices may have to be made in future: "The impact of technological choices on job-creation is crucial for policy" (Goulet 1976:175). The whole question of intermediate and appropriate technologies is posed here, but in addition the impact of the extension of educational opportunities by means of channels such as distance education must be considered very carefully with a view to target group, form and content. It requires a new look at what is meant by relevant education.

5.4 NEEDS OF THE TARGET GROUP

Experience in Britain has shown that courses in distance education should be based on the needs of students and not on the interests of teachers and institutions (Meacham in Roberts 1985:14). At the same time the establishment of needs is not without its pitfalls and it behoves the educational authorities to consider the difference between

perceived and felt needs. "Perceived needs reflect what respondents think should be their needs when reported to another person; whilst felt needs are those that the respondent personally believes they should acquire, although not acknowledging them publicly" (Hough in Roberts 1985:25). The difficulty of assessing needs is compounded by the fact that needs are difficult to determine. Our research instruments are very often quite reactive. The trick is to determine the need without suggesting it. Furthermore, if the subject is slightly or very sensitive it becomes very difficult to assess the efficacy of the response.

At the same time Taylor (in Smit 1985:43) warns that too many concessions to the needs of the students cannot be made as they might not be workplace needs, but those of leisure or merely personal development.

In the context of needs the whole issue of the basic needs approach to economic development and the creation of employment opportunities is also extremely relevant as an integrated development approach (Ligthelm 1981:313). The basic needs approach is very much concerned with identifying and meeting local needs - it places the issues of quality of life and improved productivity on the table, but taking into account the context in which development must take place and in which education and health services must be provided. The basic needs approach to education could therefore by its very nature and aims not provide one bland educational prescription for all situations. The sine qua non of basic education is context sensitivity, particularly in the rural areas. Wells (1976) points out that so many of the

educational projects in the developing world have failed due to insufficient significance being attached to the urban/rural variable in educational provision. Inappropriate educational provision begs an answer to the whole question of the legitimacy and relevancy of educational provision. In the developing world and particularly in the RSA these issues are infinitely more complex and thorny as educational provision tries to deal with first and third world issues. The matter of marketing something like the basic needs approach is further complicated in a society in transition where political, economic and educational aspirations diverge between educational planners and authorities and other sections of the population. The improvement of health conditions and educational facilities without an accompanying possibility of productive employment, or the improvement of the social circumstances of the poorer sectors of the community without the rationalisation of the informal sector or improved marketing channels for agricultural products cannot give rise to successful basic needs satisfaction (Ligthelm 1981:320).

In fact, in Africa the tendency has been to increasingly turn to basic education and non-formal education to overcome the problems which have been experienced in the provision of formal education and in order to facilitate development in rural areas (Le Roux 1982:196).

5.5 APPROPRIATE TECHNOLOGY

The role of appropriate technology in educational provision needs to be considered carefully in educational provision in general and distance

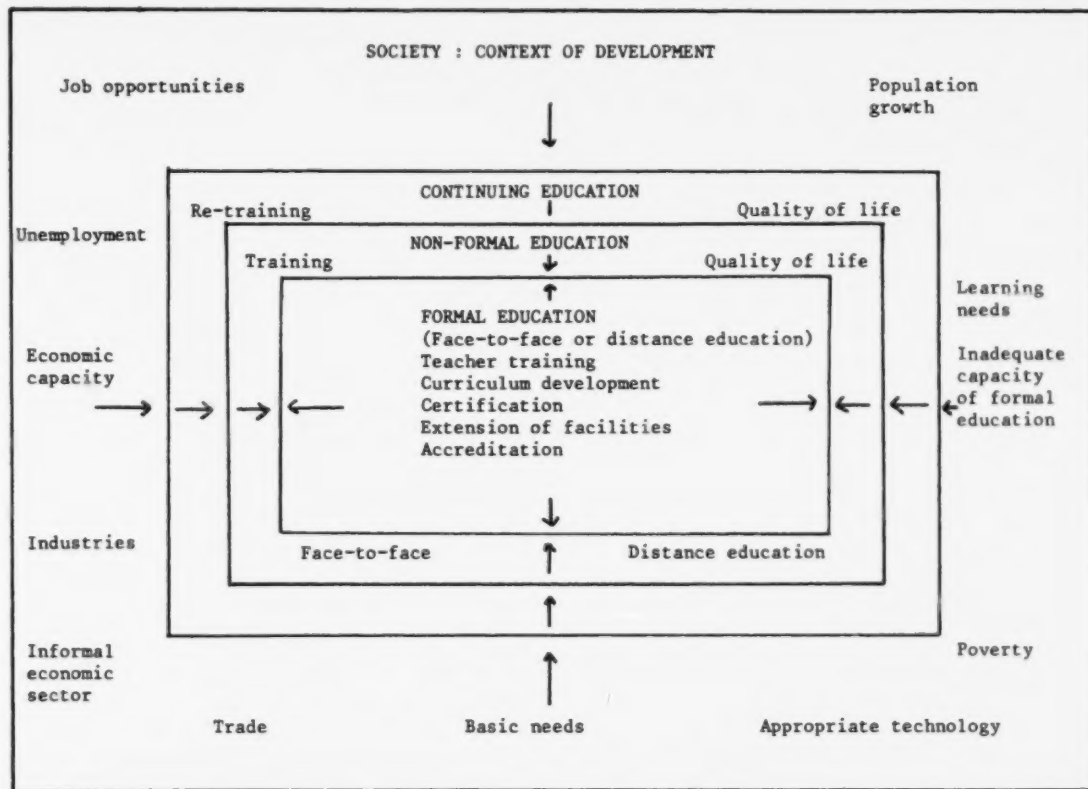
education in particular. The concept of intermediary technology is particularly relevant in the third development phase of Africa. Intermediate technology aims at a level of technology use which exploits the resources of the situation in which it is to be used - in essence it too is context sensitive. Extending the analogy to the educational sphere it is apparent that more often than not the use of technology in education is concerned with determining the use of equipment which has already been bought. "It is far rarer to find situations where the purposes and procedures of instruction have been clearly defined and then used to guide analysis and selection of technological tools" (Kissock 1985: 10).

5.6 CERTIFICATION, ACCREDITATION AND CHANNELING

Any educational system which has diversified and has channels for formal, non-formal, distance and continuing education does require for the smooth operation of this ecology of educational opportunities that certification and accreditation be addressed to streamline vertical and particularly horizontal movement between the various channels. The HSRC investigation in Education, the reports of the investigation and the White Paper (White Paper on the Provision of Education in the Republic of South Africa 1983:9-12) recommended and accepted the establishment of a council for standards for evaluation and for certification as an integral part of enabling movement between channels of educational provision. Provision is also made for input from various sectors such as employers so that sectoral needs can be served as well.

Figure 1 attempts to place the contextual factors identified in the context of diverse channels of educational provision. What emerges is the fact that, as previously mentioned, the formal education sector has factors emanating from it which attempt to generalise it as the only legitimate channel of education. The contextual factors in society, however, have an opposite and inhibiting effect on the drive for generalisation of the formal sector. The extent to which factors in the societal context become increasingly prominent will determine to what extent non-formal, distance and continuing education will emerge and what the configuration of the total system of provision of education will be. Forces from within the formal sector tend to enforce conformity; forces in society and beyond the formal sector tend to stimulate diversity. Depending on the power of these forces which are in constant interaction, unique structures for educational provision will emerge. The equilibrium between these forces will be reached at different places in each society. The forces encroaching on the formal system of education are fairly unique in every society and if adhered to will ensure that educational structures will augment one another in the best interests of all in society. This ecology of interacting context forces, at times in opposition and at other times in harmony, must be understood in the interest of a sound education system endeavouring to cater for diverging needs and interests in society bearing in mind the availability of resources in the society.

Figure 1



6. CONCLUSION

In an article assessing research in distance education, Minnis (1985:190) mentions that one of the characteristics of research on distance education is the fact that it is context specific. In a sense Minnis laments the fact that few generalizations can be made beyond the specific project 'sample' population studied. It would seem that theory building and practice diverge on this issue as the results of ignoring contextual effects and forces could be very costly and disastrous in practice. On the other hand, the very research methodologies Minnis would like to see used more often in research on distance teaching (ethnography, case study and grounded theory) are all context sensitive and therefore ideally suited to research seeking to establish the ecology of development.

BIBLIOGRAPHY

BELL, T. Unemployment in South Africa. Durban: University of Durban-Westville, Occasional Paper 10, June 1984.

BRUCE, M.G. In Europe: The future of education and the future of work. Phi Delta Kappan 65(9), May 1984:641-643.

EINSIEDEL, A.A., JR., TAYLOR, W.H. Evaluation study of an expanded distance education system. Paper presented at the Annual Conference of the Canadian Association for the study of Adult Education. Montreal, May 1985. (ERIC document ED 262 242)

ENGELBRECHT, S.W.H. Afstandsonderrig deur middel van radio en televisie. Johannesburg: Seminar SAUK, 1986:1-16.

GOULET, D. The uncertain promise: value conflicts in technology transfer. New York: IDOC, 1976.

HOUGH, M. Motivation of adults: implications of adult learning theories for distance education. In: Roberts, D. Some implications for distance educators. New South Wales: Riverina College, Occasional Papers 3, January 1985. (ERIC document ED 264 745)

KISSOCK, C. Enhancing educational opportunity using new technology. Paper presented at the World Assembly of the International Council on Education for Teaching. Vancouver, July 1985. (ERIC document ED 264 205)

KNAPPER, C., LUMSDEN, B., STUBBS, J. Instructional development for distance education. Paper presented at the World Conference of the International Council for Distance Education. Australia, August 1985. (ERIC document ED 265 638)

LE ROUX, L. Onderwys in Afrika: ontwikkeling of onderontwikkeling? Koers 47(3), 1982:189-198.

LIGTHELM, A.A. 'n Perspektief op die basiese behoefte ("basic needs") -benadering tot ontwikkeling. Ontwikkelingstudies Suider-Afrika 3(3), April 1981:307-329.

MACAROV, D. Planning for a probability: The almost-workless world. International Labour Review 124(6), November/December 1985:629-642.

MEACHAM, D. Suggestions arising from an investigation of distance education in the United Kingdom. In: Roberts, D. Some implications for distance educators. New South Wales: Riverina College, Occasional Papers 3, January 1985. (ERIC document ED 264 745)

MINNIS, J.R. Ethnography, case study, grounded theory, and distance education research. Distance Education 6(2), 1985:189-198.

MOORE, R. A fascination on the wane. Council of Europe Forum 2/85:II-III.

- MUELLER, K., SCHNEIDER, G., SCHULZ, W. Teaching at a distance - reflections on the relationship between discipline-based and general teaching theories. Distance Education 6(1), March 1985:91-101.
- ORKIN, M. Education in the context of (under) development. Journal of Education (University of Natal) 15:1-15.
- PERRATON, H. The scope of distance teaching. In: Perraton, H. Alternative routes to formal education. Baltimore: Johns Hopkins, 1982.
- REPUBLIC OF SOUTH AFRICA. White Paper on the provision of education in the Republic of South Africa. Pretoria: Government Printer, 1983.
- REID-SMITH, E.R. Why educational advisory services for mature students? In: Roberts, D. Some implications for distance educators. New South Wales: Riverina College, Occasional Papers 3, January 1985. (ERIC document ED 264 745)
- SMIT, A.J. Didaktiese realiteite in afstandsonderrig: 2. Progressio 8(2), 1986.
- STAFF OF RIVERINA COLLEGE. Some implications for distance educators. In: Roberts, D. Some implications for distance educators. New South Wales: Riverina College, Occasional Papers 3, January 1985. (ERIC document ED 264 745)
- SWAIN, G. Faltering steps towards adulthood. Council of Europe Forum 2/85:II-III.

WELLS, S. Instructional technology in developing countries. New York: Praeger, 1976.

EDUCATION IN AN INFORMATION SOCIETY: IMPLICATIONS FOR TEACHING IN SOUTH AFRICA

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1. INTRODUCTION

Most futuristic studies make claims that are often hard to believe, and impossible to validate. The problem lies with their predictive approach. They assume that the future is somehow predetermined. The methodology of such studies usually has a positivistic basis in which history, and the future, are interpreted along reductionistic and linear historical lines. Within such a framework a single structural fundamental is assumed and a single future is squeezed into its mould.

In this paper I will not follow such a positivistic and deterministic line of thinking. I accept the criticism of traditional views of science introduced by the sociologistic movement in the philosophy of science. I also accept an open and dynamic systems approach as basis with the emphasis on networks, and will thereby avoid falling into the trap of fundamentalism. I further accept Feyerabend's notion of science as one kind of mythological interpretation of the world. The claims I make for information societies should be interpreted against this backdrop. Within this framework a number of possible futures are available to us, and our future depends on the choices we make. My approach is thus opposed to that of many futurists, as well as to the popular deterministic thinking which is forever subtly present in South African minds. This kind of

thinking probably has its roots in the influence of Calvinism which has dominated local thinking not only in the religious sphere, but in the general cultural milieu.

When speculating about distance education over the next twenty years, there are a few lines that one can follow. One possibility, which is typical of many local educationists, is to accept the philosophy underlying present educational system and to build future models on them. This approach assumes there is nothing wrong with the basis of present educational philosophy. I cannot accept his view. In this paper I would like to show that the basic philosophical assumptions that underlie our present models need to be reconsidered for future education to be relevant socially. I will point out that the basic assumptions of our present educational systems are based on industrial principles. If we are indeed moving towards a post-industrial society, those principles are outdated and need to be reconsidered.

2. THE POST-INDUSTRIAL SOCIETY

Interpreters of society have argued that there has been a tremendous cultural change in Western industrial countries since the 1950's. Miles (1985:589) gives a summary of the various changes that have been observed by different interpreters. These changes concern various aspects of society such as a *sectoral shift* from manufacturing to the service industries; an *occupational shift* from manual work to services; a shift in *demand* from material to non-material goods; a shift in *value-patterns* away from thrift and competitive striving towards 'post-bourgeois' values of participation and cooperation; a shift in *power* from industrial and other traditional elites towards a meritocracy

and/or technocracy. In a more popular way Toffler (1971, 1983a) argued that the western world had basically changed from an industrial society (what he calls *second wave*) to a post-industrial society (his *third wave*).

Miles (1985) detects three basic trends in the post-industrial society which underlie the above changes, namely informalization, dualism and informatization.

Informalization refers to the so-called *blue economy*, ie. consumers buy goods and produce self-services rather than buying final services. The growth of the do-it-yourself (DIY) industry is a symptom of informalization. Informalization itself constitutes a good argument for a change in the philosophy of education. If this trend is taken to its extreme, education should also become a self-help industry. Distance education institutions are particularly suited for DIY services. If the trend of DIY continues to grow, there will be more demand for distance education institutions in future. But, as I will argue below, the present services provided by educational institutions are based on outdated industrial principles, and should be updated before full advantage can be taken of the changes in society. If distance education institutions want to supply the goods to the growing demand for DIY-services, they need to adapt their curriculae to be more relevant socially.

Miles' *dualism* refers to group polarisation within societies. The dualisms in society are, for example, the gender dualism, the rich x poor dualism, skilled x unskilled dualism, employed x unemployed dualism and others. From a futuristic perspective, dualisms will probably remain in society. At most some of the present dualisms may be replaced by

others. A number of different scenarios can be imagined for the future South African situation to illustrate possible future dualisms, but sketching the different scenarios will demand too much time for my present purposes, so I will leave the matter here.

Informatization refers to the prominent role information plays in post-industrial societies. In an industrial society the labour of the worker is basically producing (ie. manufacturing), constructing, or extracting (eg. mining) of goods. The two major job categories of a post-industrial society, on the other hand, are the service worker and the information worker. The service worker does not produce physical goods, but provides an auxilliary service activity. The information worker is involved in the generation, collection, processing and distribution of information. In an industrial society the basic raw materials are organic in nature. In a post-industrial society information, which is cognitively produced and abstract, becomes the raw material. Baker (1984) distinguishes between the following jobs on the basis of how information is manipulated. The distinctions involve workers in the following ways: (Also see Naisbitt 1984:12-15).

Those who

organise information: managers

transmit information: secretaries, telephone operators, postal workers, printers,

journalists, and I would like to add teachers and lecturers to this category

receive and store information: librarians, computer programmers, filing clerks

create information: scientists, artists, writers, architects, designers

use information: lawyers, doctors, accountants, consultants.

This list is by no means complete, but serves to indicate which jobs are

regarded as information-related.

Having stated the major trends that have been observed by future interpreters, I do not wish to discuss education in terms of all of these. I will rather concentrate on the information aspect, especially since education is traditionally perceived as concerned with the transmission of information. A comprehensive study about future prospects of education demands the consideration of all three trends, but I will delimit my topic to information. Before I get to education itself, it is necessary to determine whether South Africa is a post-industrial society. Social commentators usually only consider the major industrial nations of the west when stating that we are moving towards a post-industrial society. Apart from Norman (1984) I know of no formal study which considers South Africa as an information society. The question is therefore *Can South Africa be called a post-industrial society?*

3. SOUTH AFRICA AS A POST-INDUSTRIAL SOCIETY

I will present two arguments in support for the statement that South Africa is a post-industrial society, or at least, that it is moving towards one. The first argument concerns the South African labour distribution, and the second one, which is more general in that it is a characteristic of all the so-called developed countries, is generally known as the knowledge explosion.

3a. LABOUR DISTRIBUTION

In following the general classification of labour which was introduced

by Toffler as waves, South Africa has also experienced the agrarian wave, the industrial wave and is in the process of entering the technological wave. I will take the statistical interpretation of David Norman as basis for my discussion. According to Norman (1984), the labour distribution for South Africa, based on the economically active workers, is as follows (also see SAS 1985):

OCCUPATION	PERCENTAGE OF ECONOMICALLY ACTIVE WORKERS				
	1936	1951	1970	1980	1990
AGRICULTURE	64	37	31	16	14
INDUSTRY	19	33	31	38	34
SERVICE	4	6	7	10	11
INFORMATION	5	11	14	18	21
OTHER	8	13	17	18	20
MILLIONS:	5,3	4,6	8,1	8,6	11,4

As mentioned above in my brief discussion of Miles, two of the major characteristics of a post-industrial society are the emphasis on information and services. The figures for service and information in Norman's table can therefore be presented under one heading, *post-industrial occupations*. The combined figures are as follows:

PERCENTAGE OF POST-INDUSTRIAL OCCUPATIONS					
YEAR	1936	1951	1970	1980	1990
PERCENTAGE	9	17	21	28	32

Note that if present trends continue, industrial (34%) and post-industrial (32%) related jobs will be roughly the same by the year 1990. In other words, within three years from now, industrial and post-industrial related jobs will each share roughly a third of the labour force. Even if the growth rate of post-industrial related jobs continue at a lower rate than at present, the South African labour division will without doubt lean towards a post-industrial society by the turn of the

century. With the world-wide decline of industry (see Naisbitt 1984 for American figures and Baker 1984 for British figures) it is highly unlikely that we will experience extraordinary growth in the industrial sector of our economy.

3b. THE KNOWLEDGE EXPLOSION

The second argument I would like to present is more closely related to education, since it concerns the knowledge explosion. Although this argument is not restricted to the South African situation, but is rather a symptom of the modern age we live in, I would like to approach the South African situation from this perspective, based on the assumption that we not only contribute to the knowledge explosion, but also experience its effects in our everyday lives. Traditional western education is mainly concerned with the teaching of knowledge contents. Knowledge explosion, which is characteristic of the later stages of the industrial era, and which stimulated the rise of the post-industrial era, should lead us to reconsider the value of teaching knowledge contents.

Information, or if you prefer the term *knowledge*, has only become a commodity fairly recently. Baker (1984) points out that, until very recently, information was merely output: it was read in books and newspapers. Now it has become raw material which is as important as coal, steel and petroleum were in the industrial era. The rise of information-related jobs is directly related to the information explosion. A little over a hundred years ago, there was relatively little information, and therefore few people were needed to process knowledge. The little information that was available made it possible for an individual to know almost everything. The popular concept of the academic

as a walking encyclopedia originated in this era.

Today it is impossible to make claims to this effect. Today it is impossible even to know everything that is written in one's own field. To illustrate this, I will refer to the bulk of linguistic publications, a field I know, since I used to be a linguist. I made a rough count of articles that were mentioned in the four 1985 issues of the *Linguistics and Language Behavior Abstracts* (LBBA). By taking three pages at random from each of the four issues, and then by multiplying the resultant average by the total number of pages (excluding irrelevant pages), the total number of articles came to roughly 9000. The LBBA is by no means totally comprehensive, but I will restrict my illustration to it. Should one read the mentioned articles at a rate of one hour per article and at eight hours per day for five days per week, it will take 28 weeks to read all the mentioned articles. That is, at this rate, which is probably humanly impossible, it will take half a year to read all the articles published for linguistics. And this does not even include books that are published on linguistic topics.

To make matters worse, there is today an increasing interest in de-disciplinisation (to use philosopher Richard Rorty's term), or interdisciplinary studies. If one wishes to follow this trend, one has to read publications from other disciplines as well. It thus becomes an impossible task to keep abreast of all the available information.

Although some might want to make a case for South Africa as a third world country, I maintain that at its basis our society is knowledge-based. Not only information-related jobs are knowledge-based, but also the traditional agrarian and industrial jobs are today intrinsically

knowledge-dependent. Knowledge is thus intimately interwoven into our entire culture. There is hardly a cultural sphere in which knowledge is irrelevant. Within this context I conclude that South Africa is experiencing the same changes that countries which have already moved towards post-industrialism, have experienced. At present we may still be in a period of transition, but taking the mentioned labour distribution and knowledge explosion as typical characteristics of a post-industrial society, I conclude that the most probable future for South Africa is a move away from industrialism to post-industrialism. If this conclusion can be accepted as a working hypothesis, we now need to distinguish between the needs of an industrial society and those of a post-industrial society.

4. INDUSTRIAL EDUCATION

Our present educational system was originally motivated by industrial needs. During the industrial era, the goal of tertiary education was to turn out a new professional and managerial class. Industrial education thus provided entry into the growing middle class. It was essentially a vehicle for upward mobility. The university was then, and still is, modeled upon the factory. Year after year it produced, in assembly-line fashion, hundreds of students with the latest accumulation of new knowledge. This knowledge prepared and equipped students for life. Once one graduated, one was accepted to the *guild* of the professional and managerial class. It was (and still is) assumed that knowledge possession equipped one in such a way that one was better prepared to deal with life. It was also assumed that being a graduate, or an academic, implied being a know-all. The slogan of industrial education was *Knowledge is power*.

The following quotation sums up the traditional educational system very adequately.

"The educational process was broken down into a series of factory-like steps of unvarying sequence (the work of the various grades) through which the raw material (the students) had to pass. Finally, each student was graded and passed or rejected like an industrial product subject to quality control. The crowning, if inevitable, folly of public educators was to reproduce in the school the social and administrative organization of the factory, with manager, overseers, foremen, and operatives masquerading under the titles of superintendent, principals, department chairmen, and teachers... The students were the raw material."

[J. Bremer 1971:7-8: "The school without walls" in Bowman 1978:111].

The question is whether this kind of system is the best for the changing needs of our society. If it is true that we are moving into a post-industrial society, notably an information society, it is necessary to reconsider our goals and methods of education.

5. SCIENCE

One of the traditional goals of science was the search for truth. The claim that truth could be found through science was enforced in education by teaching only the most prestigious theories. The unfortunate consequence of this approach is that we have created a society which believes in single solutions to problems, and individuals are therefore threatened by the multiple choices that are available in real life. In real life there are too many options with equal value to choose from, which leads to overchoice (Toffler's term), and eventually to the future shock experienced by perhaps the majority of individuals in modern societies. And the truth which is promised as self-evident by scientific thinking, and which is supposed to guide our decisions, does not readily

appear to assist us in real-life choices. Our present educational system, which is restricted to this fundamentalistic view of science, is not geared to equipping students with the skills or strategies to deal with a plurality of choices. On the contrary, the traditional emphasis on teaching single *truths* only leaves the impression that life only requires one single answer. This blindfolded approach leads to the anxieties experienced by modern alienated man.

It should be noted that the view of what science is has changed among philosophers of science over the last few decades. Thomas Kuhn (1970), for example, popularised the idea in the 1960's, that what is regarded as true in science depends on more than merely plugging into the self-evident *objective truth*. The psychological make-up of the scientist as human being, as well as his social background, such as the academic society in which he finds himself, seem to be decisive in determining what science, and therefore truth is. This new approach is now known as sociologism (see eg. Brown 1984), although those who desperately try to save the face of the traditional rationality of science call it *irrationalism*. Others call science a *mythology* which has the same status as religion. Paul Feyerabend (1978) interprets science as a cultural tool used to make sense of the world around us. He argues that rationality is fallible, and therefore science, which depends on rationality, has the same status as other modes of knowing, such as religion.

Our general western cultural outlook has been strongly influenced by a Newtonian conceptualisation of the world. This static interpretation has permeated our worldview to such an extent that it is difficult to break out of the mould into which our thinking has been cast. When we consider

modern interpretations of the world, such as the dynamic interpretation of Prigogine and Stengers (1984), it is evident that our interpretations of the world are culturally relative. With the advent of the new sciences, the world has become immensely more complicated than is traditionally accepted. This complication is not only due to knowledge explosion, but also to the realisation that even in science a plurality of options are available.

The implications of the new interpretations of science for education are manifold. If knowledge does indeed change rapidly, and if scientific knowledge is cultural, with the implication that various cultures may have different interpretations (or mythologies) of the world, it is essential that knowledge manipulation rather than knowledge possession should be the central aim of education. It is interesting to note that the change in views about science occurs simultaneously with the change from industrial to post-industrial societies. Newtonian science suited an industrial society best. The new kind of science suits information society best. Modern physicists use information terminology to explain their concepts. Prigogine and Stengers (1984), for example, base their concept of time on cybernetic principles. Also, it is worth mentioning that Alvin Toffler, one of the first to point to the general change from an industrial to post-industrial society, wrote the foreword to the book of Prigogine and Stengers.

The change in conceptions of science reflects a more basic change in cultural outlook than what appears on the surface. For centuries the philosophical concept of *being* was in the centre of our thinking, and the Heraclitian concept of *becoming* took such a small role that its importance was practically denied. The ontological problem of being and

becoming was reconsidered by Whitehead at the turn of this century, and also by Heidegger some time later. These forerunners have merely detected the beginning of a change in the outlook of the western world. After centuries of placing the emphasis on being, *becoming* now forms the basis of philosophy and science. This *Keplerian revolution* (Prigogine and Stenger 1984:306; borrowing the phrase from Moscovici) marks the beginning of a new era, with profound implications for all cultural activities, in much the same vein as the Copernican revolution after the Medieval Ages. The Copernican revolution laid the foundation for Newtonian science, which emphasised being, and can thus be called static science. The Keplerian revolution, with its emphasis on becoming, implies dynamic systems, which in turn indicate a move away from fundamentalism to a holistic approach with multiple options.

This reconception of science has not really made an impact on educational circles for various reasons. One reason for the conservatism in educational circles can be explained in socio-psychological terms. Change brings uncertainty, and if Maslow's safety needs are indeed as basic as he claimed, human nature grasps for security in stability by conserving the known. Now I do not wish to deny the right to grasp for security. I do, however, think that the traditional search for security in knowledge contents is misplaced. Perhaps our security should rather lie in the acceptance of change rather than resistance to it. But security in knowledge is so deeply engraved into our cultural thinking, that it will perhaps take a few generations to get rid of it.

7. KNOWLEDGE MANIPULATION

One of the major ramifications of a post-industrial society on education is that because there is too much information to know, the traditional emphasis on knowledge for possession needs to be reconsidered. The underlying assumption here is of course that the nature of education should be determined by the needs of society. This implies that, because the demands of a post-industrial society are different from those of an industrial society, the nature of the systems of education in the two kinds of societies should differ.

As mentioned above, the traditional emphasis of education was on knowledge for possession, but knowledge explosion prevents any human being from possessing all the relevant information. In order to deal with the bulk of available information in the best possible way, it is best to teach skills and strategies that will equip students with the power to manipulate knowledge. The traditional *knowledge possession* should thus be replaced by *knowledge manipulation*.

By *knowledge manipulation*, I basically mean the ability to deal adequately with information. In order to appreciate what is involved in knowledge manipulation, it is necessary to consider various things one can do with information. In general terms, one can either process information, store it, or transmit it (see eg. Lindamood 1984). I will discuss these three aspects very briefly without considering all the implications for education. A comprehensive discussion of the implications demands a treatise on its own.

The storage of information involves the following:

- i) Receiving of information in a form appropriate for storage.
- ii) Keeping or preserving of information with its essential characters unchanged for some period of time.
- iii) Retrieving or accessing of information for a specific use.

Let me briefly refer to the third point. In the present educational system, students are not explicitly taught how to retrieve information, nor to extract relevant information from texts. Students are not equipped with decision-making tools to determine which information is relevant and useful for their purposes. We have somehow always assumed that through exposing students to enough content, those skills will automatically emerge.

The processing of information involves the following:

1. Combining of various pieces of information to generate new information.
2. Transforming of one form of information into another form.
3. The copying of information.
4. Decision-making on the basis of available information.

It seems to me that the only aspect of the processing of information that traditional education concentrated on was the copying of lectures. With the modern technology that is available today, that kind of information copying is redundant.

The transmission of information:

1. The target to which information is directed will influence the format of the information.
2. The purpose for which information is transmitted will influence which information is selected to be transmitted, and which communication medium is best suited to transmit the information.

These two points are by no means comprehensive of the possibilities of

information transmission, but serve as examples of what is important in transmission. It should be obvious that traditional industrial education neglected the teaching of these aspects. Interestingly enough, these aspects were included in the curriculae of ancient Greece and Medieval education in the form of oratory and rhetoric. A revival of this approach will do our education more good than harm. Basic communication skills should be explicitly taught as was done centuries ago.

As mentioned above, the essence of the change in conceptions about the world since the beginning of this century is the emphasis on *becoming* rather than *being*. In other words, there is a change from static to dynamic systems. In this respect I thus argue for the replacement of static education by dynamic education. Dynamic education implies that we should equip students with skills and strategies to manipulate information. The emphasis should be on *knowledge for use* rather than on *knowledge for possession*. The static emphasis on the description and knowledge of information should be replaced by the dynamic understanding and exploitation of propositions. The use of information should thus be in focus. Students should not be bombarded with detailed theoretical models at universities, but should rather be trained in the skills of analytical and synthetic thinking, with the emphasis on the last-mentioned. How to utilise information and strategies that show the most efficient ways to obtain certain goals should thus be the goal of education. Also, education should no longer be seen as a goal in itself, but rather as the means to obtain other goals. The static view of education for life should rather be replaced by the maxim of education through life, ie. education is life itself. This implies that education never stops and also that education is not restricted to special institutions. There can be no point in a life where one can say that one has learnt

enough. Dynamic education implies continuous education.

The notion of continuous education has tremendous implications for distance teaching institutions. If education is to be continuous, it should be obvious that those who continue to study cannot make use of residential institutions because of the practical implications. Infrastructures of residential institutions are very costly, and these institutions can only cater for those students in the immediate geographical vicinity. In order to make continuous education an immediate profitable concern distance education institutions can be used. In this respect distance education institutions have an advantage over residential teaching institutions. But then, we cannot enter the education of the post-industrial era with industrial assumptions. In order to be effective in a post-industrial society, we need to reconsider our assumptions along the lines suggested above.

8. CONCLUSION

The South African society¹ is in the process of changing from an industry based society to a post-industrial society. Our present educational assumptions are perhaps valid for industrial societies, but they are not useful in a post-industrial society. The demands of a post-industrial society are different, and therefore the demands on education are different. The overchoice of available information has the consequence that we can no longer teach knowledge contents. Our educational system must be changed in order to equip students with the skills and strategies necessary to manipulate knowledge. If knowledge manipulation rather than knowledge possession becomes the essence of teaching, a radical reconception of curriculae, teaching methods, examinations, and

other educational categories, is necessary.

NOTE

1. This change is not the only change that we are experiencing. Political changes are more obvious and therefore seem to be more dominant. In this paper, however, I delimited my topic to exclude political discussion and concentrated on some basic aspects of education. I maintain that no matter whether political change will be brought about by revolution or peacefully, the basic issues that I discussed will need to be considered in education of the future.

REFERENCES AND RELEVANT READING

- | | | |
|---|------|--|
| BAKER E | 1984 | TOWARDS THE INFORMATION SOCIETY
in BARQUIN & NEAD 3-7 |
| BARQUIN BC
NEAD GP (eds) | 1984 | TOWARDS THE INFORMATION SOCIETY
AMSTERDAM: NORTH-HOLLAND |
| BRESTERCHER D
DREZE J
FRAGNIERE G et al | 1974 | A UNIVERSITY OF THE FUTURE
THE HAGUE: MARTINUS NIJHOFF |
| BORNAU AB
WIKO K (eds) | 1983 | POST-INDUSTRIAL SOCIETY
NEW YORK: UNIV PRESS OF AMERICA |
| BOWMAN J
KIRSTEAD P
DEDE C
PULLAM J | 1978 | THE FAR SIDE OF THE FUTURE
WASHINGTON: WORLD FUTURE SOCIETY |
| BREWER J | 1971 | THE SCHOOL WITHOUT WALLS
NEW YORK: HOLT, RINEHART, WINSTON
[QUOTED IN BOWMAN 1978:111] |
| BROWN JR (ed) | 1984 | SCIENTIFIC NATIONALITY: THE SOCIOLOGICAL TURN
DORDRECHT, HOLL: D REIDEL |
| CARTER C | 1980 | HIGHER EDUCATION FOR THE FUTURE
OXFORD: BASIL BLACKWELL |

CLARE BR (ed)	1984	PERSPECTIVES ON HIGHER EDUCATION BERKELEY: UNIV CALIF
DE BRER SJ	1985	DIE UITDAGINGS WAT DIE TOEKOMS VIR DIE ONDERWYS IN SUID-APRIKA INHOU NOU-BLAD 17,1: 2-4
FEYERABEND P	1978	SCIENCE IN A FREE SOCIETY LONDON: NLB
HERMAN R	1986	ALL CHANGE AT EUROPE'S UNIVERSITIES NNW SCIENTIST 17 APRIL: 32-35
KAHN H BROWN W MARTEL L	1977	THE NEXT 200 YEARS LONDON: ASSOCIATED BUSINESS PROGRAMMES
KIERSTED P BOWMAN J DEDE C	1979	EDUCATIONAL FUTURES: SOURCEBOOK I WASHINGTON: WORLD FUTURE SOCIETY
KUHN T	1970	THE STRUCTURE OF SCIENTIFIC REVOLUTIONS CHICAGO: UNIV PRESS
LASZLO E	1979	THE EDUCATION OF EDUCATORS in KIERSTED et al: 49-55
LBBA	1985	LINGUISTICS AND LANGUAGE BEHAVIOR ABSTRACTS VOL 19 NO 1-4 SAN DIEGO, CALIF: LEO P CHALL
LINDAMOOD GB	1984	THE INFORMATIONALISATION OF TC MITS (THE CELEBRATED MAN IN THE STREET) in BARQUIN & MEAD: 27-31
MCDANIEL MA	1974	TOMORROW'S CURRICULUM TODAY in TOPFLER (ed): 101-131
MILES I	1985	THE NEW POST-INDUSTRIAL STATE FUTURES DEC: 588-617

NOTAU S	1985	SOUTH AFRICA'S TROUBLED TOWNSHIPS OPTIMA 33: 200-208
WATSBITT J	1984	MEGATRENDS LONDON: FUTURA
NORMAN D	1984	A SOUTH AFRICAN INFORMATION TECHNOLOGY PERSPECTIVE ON OFFICE AUTOMATION JOHANNESBURG: STRATEGIA
PERRIN H	1984	THE HISTORICAL PERSPECTIVE in CLARK: 17-55
PRIGOGINE I STENGERS I	1984	ORDER OUT OF CHAOS: MAN'S NEW DIALOGUE WITH NATURE LONDON: HEINEMANN
PULLIAM JD	1979	TOWARD A FUTURISTIC THEORY OF EDUCATION in KIERSTEAD et al: 56-63
SAS	1986	SOUTH AFRICAN STATISTICS PRETORIA: CENTRAL STATISTICAL SERVICE
SEIF E	1979	PLANNING SCHOOLING FOR FUTURE LIVING in KIERSTEAD et al: 83-106
SHANE HC SHANE JC	1974	EDUCATING THE YOUNGEST FOR TOMORROW in TOFFLER (ed): 181-196
STRUDLER HL	1974	EDUCATIONAL FUTURISM: PERSPECTIVE OR DISCIPLINE? in TOFFLER (ed): 173-178
THROBALD R	1979	THE NATURE OF EDUCATION: A FUNDAMENTAL RECONSIDERATION in KIERSTEAD et al: 26-37
TOFFLER A	1971	FUTURE SHOCK LONDON: PAN BOOKS
TOFFLER A (ed)	1974	LEARNING FOR TOMORROW NEW YORK: VINTAGE
TOFFLER A	1983a	THE THIRD WAVE LONDON: COLLINS

TOFFLER A	1983b	PREVIEWS AND PREMISES NEW YORK: WILLIAM MORROW
WERDELL P	1974	FUTURISM AND THE REFORM OF HIGHER EDUCATION in TOFFLER (ed): 272-311
WREN-LEWIS J	1974	EDUCATING SCIENTISTS FOR TOMORROW in TOFFLER (ed): 157-172

**THE EXPLOSION IN STUDENT NUMBERS: SOME MORAL AND PRAGMATIC
CONSIDERATIONS**

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South Africa has often been described as the meeting point between the first and third worlds. For some reason the political implications of this encounter receive more coverage in international news media than other matters of far more direct concern to the people of both worlds. Although education is a less sensational and dramatic source of journalistic copy, the responsibility of both worlds in this regard does not altogether escape concerned and interested parties.

The first world has a longer history of institutionalised education and systematic scientific endeavour. It therefore possesses expertise and experience that could be very important to the third world. The first world also has a stake in, and a duty towards, the third world in respect of both development and education. It is very much in the first world's interest to assist nations of the third world in the transitional phase.

But this is not the responsibility only of the first world. Any unilateral developmental drive by the first world will remain an input from "outside" and will never touch the hearts and souls of those in search of education and development. People of the third world therefore have a pressing duty to exploit what opportunities they have and to launch initiatives in a concerted effort towards self-development. Such an effort is needed throughout Africa, but the chances of success are greatest in Southern Africa - provided other problems extraneous to education can be resolved.

The indications are that white population figures in the RSA are stabilising. One could therefore expect the number of matriculants, as well as the white university student population, to show a similar trend.

A research project on manpower undertaken by the University of the Orange Free State (March 1985) reveals, however, that a major explosion in the numbers of black students may be anticipated in the near future. Educational planners should not mistake this sudden increase for a once-only escalation that will level off fairly soon, as happened in western Europe - where the birth rate shot up briefly after the Second World War. In the case of the black population of Southern Africa a high birth rate is compounded by a general backlog in the provision of education, the reasons for which in themselves constitute a theme for several papers of this nature.

For our purposes we shall merely acknowledge that the market for education is nowhere near saturation point. An analysis of school pupil statistics for 1984 reveals, for instance, a black school population of 5 795 711. This includes the national and independent states. Of these 3 228 200, or 55,7 percent, were in junior primary classes and a mere 96 365 in Standard 10, of whom only 8 000 obtained full matriculation exemption at the end of 1984.

In view of the fact that the education system is improving appreciably (particularly in the area of in-service teacher training), that universal compulsory schooling is being phased in at present and that the number of matriculants is likely to increase considerably over the next decade or two, one must assume that the demand for university education is likely to grow substantially in the years to come. In fact, one could justifiably say that tertiary institutions are about to experience an avalanche in terms of demand on their resources.

If the costs of university study - particularly at residential establishments - continue to rise at the present rate it seems logical that the demand for distance tuition will increase. If one allows, more-over, for a measure of political resistance to ethnically based universities, it stands to reason that Unisa will have to accommodate more than its share of this avalanche of black students.

Although Southern African universities are today open to all races, numbers are restricted in most cases, and it is possible to accommodate only a handful of the vast numbers of black students in traditionally 'white' universities. As a result of stringent selection procedures at certain universities these will probably constitute a negligible percentage of the anticipated avalanche.

Naturally there are other tertiary institutions (such as technikons and colleges) that could absorb a large proportion of these students, particularly if one considers the manpower shortage in technological fields. However, there is still a deep-seated bias against non-university institutions, the argument being that their qualifications do not have the same status and market value as those of academic establishments. Such conceptions are unlikely to change radically overnight and the pressure on universities will probably not abate for some time.

In addition, the present school system tends to prepare pupils for academic careers - a problem addressed in the recommendations of the HSRC report on education, which advocates that students should be prepared at school level to enter alternative types of tertiary training institutions.

The Minister of Education and Culture (House of Assembly) recently announced that student numbers will have to be curbed. He mentioned a growth rate of one to two percent on the

1986 figures. If one considers that the South African economy - in any case fairly small, pro rata to the total population - is currently passing through an extremely difficult period, the Minister's statement does not seem unjustified.

Allied to this is the fact that as much as 31 percent of any given age group eventually qualifies for university study. In the light of the country's crying need for highly-trained technicians, this lends even greater force to the Minister's appeal to 'rationalise university admission and growth rates.

The above statistics refer, however, only to one component of the South African population - the whites. This brings me to the theme of this paper: how to strike a balance between pragmatic realism (as proposed by the Minister) and moral responsibility (towards a body of people still hovering on the threshold of the professional and academic worlds).

Manpower requirements and financial resources are key considerations in any education system, particularly at tertiary level. It would therefore seem realistic to limit student intake should manpower needs and the availability of funds demand it. There are a number of possible alternatives, not all of them equally feasible, viable or fair.

Restriction of student numbers

- a) The most obvious method of limiting student numbers is for universities to **raise their entrance requirements**. As universities are academic institutions, this would appear to be the most equitable solution: to discriminate on purely academic grounds when deciding between candidates.

This would ensure a better calibre of academic material which, all other factors being equal, should also result

in a higher pass rate. The raising of entrance requirements, unless dramatic, would make little difference to many professions, especially those which set their own minimum admission requirements over and above academic qualifications.

Several universities already apply stringent selection procedures, but at present students not admitted to the profession or university of their choice still have other avenues. However, a general upgrading of matriculation requirements (already approved in principle by the Joint Matriculation Board) would exclude a great many potential students. Since research into this matter is in process and data are still confidential, one could only venture a general statement that any drastic upgrading would exclude up to 70 percent of black students currently qualifying for university entrance.

It is particularly important that there should be consultation between universities (which are entitled to set their own entrance qualifications) and education departments (which have to educate pupils and ultimately issue a certificate declaring their level of proficiency). It should be appreciated that there could be serious social and political repercussions if the school system should declare a candidate to be university material and the universities find such a person unacceptable.

- b) In point of fact not all who complete their schooling qualify for university entrance. Another method of limiting student numbers is to provide **improved student counselling services**. There are any number of technikons and colleges better equipped to provide specific types of training than that provided by a university. Unfortunately many prospective students labour under the misapprehension that a university education is the only worthwhile option. Equally unfortunate is the fact that univer-

sities continue to offer various courses which are better left to technikons and colleges.

Certainly the university has a duty to society, but it is not a vocational school that has to cater for each and every societal need. There are excellent alternatives available and, through proper counselling, those students who are less likely to succeed academically may be channelled to institutions better suited to meet their needs.

- c) Another possibility is for universities to insist on candidates writing an **entrance examination** (either individually or collectively). Universities have the power to decide whom to admit and whom to reject but, in view of the organisational and financial implications of such a procedure, it does not seem feasible at present.
- d) Numbers could also be limited by **expediting the flow of students by improving pass rates**. Universities are continually looking into improved teaching methods. Most universities have bureaux researching various didactic aspects of university teaching but, because of the tradition of academic freedom, participation in such training programmes for lecturers is largely voluntary.

It would be a mistake to lay the blame exclusively at the door of the teaching staff. Students should take their studies more seriously. If universities were to follow a more stringent elimination policy, non-performers could be excluded at an earlier stage to make room for committed students. One way of eliminating non-performers is to be more strict about re-registration, particularly at post-graduate level where students tend to enrol year after year without ever completing the degree.

- e) A very radical way of limiting student numbers would be to assign each university a quota. However, this would be a

violation of university autonomy and would more-over be counter-productive in the present system where quality of tuition is the main attraction for students.

A quota system usually relates to the manpower needs of a country. Although universities are there to serve society, which has certain needs of its own, it is questionable whether they have a duty to regulate supply and demand. After all, the cardinal advantage of supply and demand is that it stimulates healthy competition. In my view the university's primary responsibility is to control and guarantee the quality of tuition and academic standards - not to supply a specified number of qualified people on demand.

The title of this paper raises two critical issues: pragmatic realism and moral responsibility. So far I have dealt, if only cursorily, with the first half of the problem. In the final analysis a government can spend only a certain percentage of its budget on university education. While the actual amount might be open to question, some sort of restriction on funds will have to be accepted - particularly in the present economic climate.

This brings me to the second half of my argument. Even though universities are compelled to limit student numbers in view of the restrictions imposed on them, it does not detract from their moral responsibility. Only two possible solutions will be mentioned here.

- (a) Given the existing constraints on space, staffing and funds, universities could still try to accommodate some measure of growth beyond that announced by the Minister. There are various ways of increasing productivity without tampering with the privileges and conditions of service of personnel. Modern technology permits greater productivity without a corresponding increase in manpower.

Until quite recently universities were not subject to the same pressure as today. Rationalisation and increased productivity are comparatively new challenges, but ones that demand intensive research and careful planning. Experience has shown that it is always possible to accommodate a few more students, that space and facilities are never fully utilised and that every person can work that little bit harder. Besides, universities have a great reservoir of expertise and initiative that needs to be tapped. However, the needs and circumstances of every university are different and this is not the occasion to reform or revamp individual universities. At all events it cannot be denied that, through rationalisation and re-planning, existing facilities could be stretched to cater for more students. Western Europe and the United Kingdom have been compelled to do this. There is no reason why South Africa should lag behind.

- (b) Apart from the possibility of accommodating larger numbers in the same premises, there is another option - one which touches on many of the problems associated with the restriction of student numbers.

A major difficulty faced by universities is that many students are not ready for tertiary study. Although there are a variety of institutions which prepare students for university entrance, their standards of excellence vary. In addition the calibre and level of achievement of school leavers fluctuate. Theoretically, however, candidates who barely scrape a pass - irrespective of where they complete their studies - have the same chance as top achievers of gaining admission to a university.

Besides the variety of agencies which tutor candidates, there are many ways of qualifying for university entrance. Statistics indicate that candidates with certain

qualifications are more likely to succeed at university than others who have different qualifications. Another indicator is the period that has elapsed since the candidate matriculated.

Experience at the University of South Africa suggests that many students do not possess the language skills necessary for scientific study. Their powers of comprehension, and especially their expressive powers, are grossly deficient. This applies to speakers of the two official languages, and even more particularly to black students, for whom the official language in question may well be a second (or even a third) language. These students are expected to communicate in this "foreign tongue" at tertiary level.

Modern science is predominantly a first-world creation and its culture or ambience is often alien to third-world people. In this sense the latter are culturally deprived - which certainly does not mean that they have no culture. However, it cannot be denied that many of the day-to-day concepts used by western people are completely foreign to them, meaning that there is a problem not just with the language but with the actual concept system of the academic world.

It also has to be accepted that the different education systems in South Africa are not as yet teaching at the same level. Some students - even ones who are intellectually capable of coping with tertiary study - are at a severe disadvantage. Furthermore, any students registering for distance education have an additional handicap. The fact that they are largely thrown back on their own resources (and have to study independently) implies a need for guidance in study methods and techniques.

In view of the above one may have to consider the possibility of offering a course (or courses) to prepare students for university study. Such a course would need to focus on areas which include **language proficiency, study methods and techniques, and subject enrichment**. The present bridging course at Unisa has only three subjects (English, Afrikaans and Accountancy) from which a choice has to be made. One would probably have to consider broadening the range of subjects.

Although for various reasons the unit, college, institute or centre offering such a preparatory one-year course could not be completely separate from Unisa, organisationally it should be an independent entity with its own controlling body and management structure. The University already has similar units in the form of centres and institutes which could serve as models for planning the proposed unit - with due regard to its distinctive character and the needs it must satisfy. Naturally any such proposal would have to be dealt with by the various controlling bodies of the University. Nonetheless I give the following broad outline of what I have in mind for such a "bridging college".

1. **Aims**

The bridging college must function independently. Its aims could be twofold: to prepare students for university study, and to limit numbers by channelling doubtful cases through the college rather than launching them into the mainstream. This would enable the University to keep to its stipulated growth rate without flatly rejecting what might well be promising material. The year (or years) at the college would be both **preparatory and exploratory**. Those making little or no progress here would have little hope of success in the mainstream, since the courses would aim at intensive remediation with due regard to didactic principles.

2. Funding

Such a bridging college could be funded by tuition fees, donations from the private sector and a partial subsidy. In the latter case it would obviously have to meet the requirements for subsidisation.

3. Subjects

It would be counter-productive to offer too wide a range of subjects. One of the two tuition media should be mandatory, plus some form of didactic orientation to what are commonly known as "study skills". In addition there could be an optional subject taken from groups representative of the arithmetical, natural and cultural sciences.

4. Recognition of courses passed

Although the course would be designed as a preparation to undergraduate study, one might consider recognising one of the three subjects for degree purposes, provided a given minimum pass is obtained. This would make the college eligible for subsidy and would be an incentive to students, since it would launch them straight into their university studies.

5. Admission requirements

At present any student who is accepted is plunged straight into the mainstream. A small percentage enrol for the existing bridging courses, but strictly speaking they are merely following alternative syllabi within the mainstream.

There are numerous studies indicating the chances of passing for different types of matriculants. Candidates

with manifestly poor chances of success could be channelled through the bridging college, as could those who obtained an average matriculation certificate more than, say, five years earlier.

Candidates who have already unsuccessfully attempted university studies should be readmitted to the mainstream only by way of the bridging college, irrespective of the nature of their matriculation certificates.

It should not be necessary for a candidate with a fairly recent and reasonably good matriculation pass to proceed via the bridging college.

One might wonder how relevant this is to a conference devoted to distance tuition. The indications are that the residential universities' policy of restricting student numbers will precipitate a greater demand for distance education. Since the University of South Africa is also subject to restrictions, the problems besetting the greater proportion of people aspiring to university qualifications remain unsolved. In the same way as any other university, Unisa has a duty to maintain certain standards. By preparing doubtful cases for university study by means of a preliminary college course it could maintain these standards, improve its pass rate and expedite the flow of students - which will in turn influence student numbers.

The cost of study at a residential university is already almost prohibitive. In most cases a preparatory year will extend the period of study. In this regard distance tuition permits students to be self-supporting while preparing themselves for a university career.

The emphasis on distance tuition should not be seen as covert propaganda against the tuition offered by residential universities. Certain types of training cannot be conducted by means of distance tuition, and the two types of institution should be seen as complementary. In a vast country such as South Africa distance tuition often offers an alternative - in some cases the only hope - for people who wish to develop their potential, but lack the wherewithal to give up gainful employment for several years.

PSYCHIC ASPECTS OF DISTANCE EDUCATION

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We live in an era in which there is growing antagonism against the university as an institution which has as its aims intellectual research and excellence. The demands that are set at a contemporary university in a changing world affect all scientific disciplines (Du Toit, 1986). Claustrophobia will manifest and pressure will be on the cultural sciences.

Residential universities are already investigating what distance universities are doing.

Most of the invective of the Green Paper in Britain was directed at the universities. The latter was accused of not meeting the needs of the economy, of being too dependent on handouts from the taxpayer, of being guilty of antibusiness snobbery; they produced too many graduates who were virtually unemployable and not enough engineers, scientists and technicians. This document called for a shift away from the arts to the sciences (Clare, 1986). In South Africa too, universities were recently (Feb. 1987) earnestly addressed by the government.

According to the Robbins report university figures will drop with 33% within the next 20 years, because of the lower birth rate in the United Kingdom (Clare, 1986). This however is not the case in the RSA.

Because we are also involved with human beings the following psychic aspects such as needs, personality, motivation, self concept and the psychodynamics of distance education are focussed on in this presentation.

An individual's personality is closely related to Maslow's hierarchy of needs. He compiled a hierarchy of eight innate needs and the sequence in which they appear are: physiological needs (water, food and sex); needs for

safety (one sees it clearly operating in children); needs to belong and be loved; needs for esteem (recognition from other people) and needs for self actualization is defined as ongoing actualization of potentials, capacities and talents (vocations). Maslow stated - "What a man can be he must be!"

Self actualization is the highest need in the hierarchy and is described by Maslow as a need to fulfil a person's potential and to strive towards excellence. As an individual makes headway with the challenges he is faced with he experiences growth. Actualization is, therefore a by-product of his dynamic interaction with life. His potentialities are awakened and his talents put to work.

According to Maslow's theory of motivation a person must first satisfy his lower needs (e.g. food, safety and love) before the higher needs (understanding, beauty and self actualization) can appear. Only when an individual has been able to satisfy his basic needs will his energy be available for self actualization. The lower a need is in the hierarchy, the more powerful it is. The higher the needs are in the hierarchy, the weaker it is but yet the more distinctly human it is. Even though the higher needs are not directly related to survival, their satisfaction is more desirable than the satisfaction of lower needs. Satisfaction of the higher needs produces deep happiness, peace of mind and a rich inner life (Hergenhahn, 1984).

The course a student chooses indicates his interests and needs and eventually hopefully improves the quality of his life. Personality growth leads to the development of interests which, in turn, leads to a choice of career.

Much can be said about this but owing to a time limit allow me to illustrate what I have said by way of a few (some perhaps far-fetched) examples.

Many women want to return to the labour market after their children have grown up and for them distance teaching is ideal. There is also the person who is already qualified

and working in a post, but who wants to increase his chances of promotion. He will, therefore, have to better his qualifications. He is motivated to strive for something which will also enhance his self concept. H.S. Sullivan defines motivation as "striving for a real or permanent satisfaction of needs". The student who for financial reasons could not immediately after matric attend university when all his peers went, in the meantime obtained the means. Because of his advanced age he has decided not to go to a residential university and therefore chose a distance teaching university to achieve his goal. Goal directed motivation is manifested, because in distance education we are mainly involved with the more mature student who no longer struggles with the issues of early adulthood and who does not want to function in a teacher/pupil situation - i.e. the more autonomous person.

Tutor/student relationships of residential universities are different from the lecturer/student relationship in distance education (mentioned in other papers). Here (i.e. distance teaching) the student uses his tutor as a supporter of his own ideas - as a sounding board. Therefore one must grant students the opportunity to be critical in their opinions and lecturers should not adhere to a rigid scheme when marking their assignments. These students come with high expectations and it is of cardinal importance that we tutors assist them to fulfil it.

The schizotypal and schizoid personality types (who function very well in solitude - e.g. research laboratories etc.) also benefit by distance education because they are secluded and need not interact in an interpersonal context with other students. The same sometimes also apply for teaching staff of distance education universities.

Prisoners can decide to make their lives more worthwhile and because of their limitations study is the obvious thing to attempt. In this group may also be the dishonest business man whom all his life wanted to further his studies, but because of his busy programme could not manage. He made a

faux pas, was sentenced and now have ample time to study and fulfil a long desired ideal! From the abovementioned examples one should not generalize and think that all distance education pupils are the outcasts and the maladjusted of society!

Rogers (1965) points out that every individual must be prepared to assume responsibility for his own life.

It goes without saying that distance education has positive and negative points. To mention just a few. When a student lives far away from any centre of study the contact with his lecturers are limited. The possibility of study groups is impossible. Good library facilities is not always available when he urgently needs literature. For him it can be very frustrating when he encounters problems with a course. All these problems must be faced and overcome.

Although prospects for the 21st century may seem very challenging, exciting or grim - one should always take the human factor into consideration. I mention this because when one goes through the literature concerning distance education it is obvious that much more attention is given to the technical aspects (computerizing and slim lining courses) than the human factor.

List of references

- Clare, J. (1986). Twenty years after Robbins. Is there really a state of crisis in higher education? The Listener, 30 January 1986, 2-4.
- Du Toit, A. P. Inaugural lecture. University of Pretoria, Department of Philosophy, 2 September 1986.
- Hergenhahn, B. R. (1984). An introduction to theories of personality (2nd ed.). London: Prentice-Hall.
- Maslow, A. H. (1968). Toward a psychology of being (2nd ed.). New York: Van Nostrand Rheingold.
- Rogers, C. R. (1965). Client-centered therapy: Its current practices, implications, and theory. Boston: Houghton Mifflin.

Lize van Robbroeck

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Since the 1976 Soweto Riots it has been clear that education forms a priority concern in South African politics. At the NUSAS 1985 congress, the education crisis was decided on by students all over South Africa as a pivotal issue, and 1986 saw the birth of the official demand for a Peoples Education.

Although the issues addressed by educational reformists concern mainly black primary and secondary schooling, campus riots over the past two years show all too clearly that tertiary education is by no means exempt from the dissatisfaction that affect black South African schools. Nadine Gordimer, in an address to the U.C.T. Faculty of Arts and Music in 1986, reminded students that:

What has been known as campus unrest has been the realisation and proof...reluctantly accepted by educational institutions themselves, that these institutions are power structures like any other supporting columns in the edifice of racist South African society.

UNISA, as a correspondence university, is less directly confronted with student rebellion than residential universities. It is, however, utopian to regard ourselves as immune to, or above, the serious political debates conducted on residential campuses today. It is, after all, not unlikely that some of our current UNISA students were active participants in the 1976 Soweto riots.¹

In South Africa, where the vast majority of the population have limited access to educational facilities, UNISA, as a correspondence university, provides unique and invaluable

opportunities for higher education. In 1986, 41% of our total student population was black, coloured or Asian. Yet, despite the fact that this university accomodates students from a wide and divergent spectrum of classes and cultures, it appears that most of the Humanities continue to offer a mainly traditional Eurocentric course content.

Like most of the Humanities, History of Art as a discipline evolved in Europe and concerned itself until quite recently almost exclusively with European and American art. Lately, however, the discipline has extended itself to incorporate studies of the much neglected area of women's art, and the arts of the Third World and Asia. Nonetheless, Art History continues to teach primarily male-produced European art.² Not only the content, but also the method of teaching, presents problems. Most History of Art courses offer Ancient Greek and Roman art in first year, Medieval, Renaissance and Baroque art in second year and close with a study of twentieth-century European and American Modernist developments in third year. This linear, evolutionary teaching approach precludes the possibility of broaching newer, alternative topics, and severely limits the student's understanding of the scope of Art History. Not only, however, does this restriction of content impoverish a discipline which is by nature rich and expansive, but concentrating entirely on European art instills in the student the conviction that European culture is, if not supreme, at least the yardstick against which other cultures are to be measured. Although western hegemony is seldom openly endorsed in these courses, we have to be sensitive to the fact that this kind of selectiveness can, and does, reinforce cultural dominance.

The suggestion is by no means, however, that European culture be jettisoned in favour of a purely African curriculum. It is felt that our teaching of European art can only

be enriched by a measure of cross-cultural evaluation. Furthermore, looking at Third World art involves the application of new methodologies which challenge the largely formal methodology commonly applied to European art.

The shortcomings of both the content and approach of the traditional course structure led the History of Art staff at UNISA to convene a number of meetings to reconsider the current teaching programme, and devise alternative courses designed to accomodate our position in Africa, and cater more to the needs of a culturally diverse student body.

At a correspondence university, however, changes cannot be effected overnight. The writing, printing and publishing of study material is costly and involves considerable labour. The administration of a university as vast as UNISA is formidable, and cognisance has to be taken of this when courses are redesigned. Major content changes could consequently only be introduced in third year, as similar changes in first and second year, apart from some minor adjustments, proved impractical.³

The most significant step we have taken, however, is to dispense with a strictly chronological method of teaching. Although we still plan to present students with survey guides that will treat the history of European art in a broad and linear fashion, the bulk of the second and third year study material will comprise study guides that have a thematic rather than chronological emphasis. There are several advantages to the thematic approach: a guide with a theme such as "Art and Society" can include essays on art forms as divergent as Italian Futurism and contemporary South American Art. Cross-cultural comparisons can be made and wider aesthetic issues can be addressed. Because these study guides will consist of series of self-contained

essays, new essays may be added in the form of study letters as the need arises. The essay system is particularly advantageous in as far as it allows for a variety of methodological approaches. As more lecturers will be involved in the writing and compilation of a single guide, students will be exposed to a multitude of views on one topic. The closed, developmental nature of chronological surveys can thus be exchanged for a system that is methodologically and thematically dynamic.

From a lecturer's point of view, the proposed changes could prove very beneficial. Specific interests and specialities can be explored, and the emphasis can shift yearly to accommodate the availability or absence of personnel.

Most important, however, this course system allows for an in depth investigation of topical South African cultural issues.

There are, however, more practical reasons why a less androcentric and Eurocentric approach would benefit our Art History students. Situated as we are on the southernmost tip of the African continent, European and American art is accessible to us only through reproductions and rare traveling exhibitions. No art historian would underestimate the value of a first-hand experience of art, and to our students, most of whom have probably never been overseas, European art must remain remote or, at best, a bit distorted by the shortcomings of reproduction.⁴ Moreover, concentrating more on the arts of Southern Africa would result in students experiencing art at first hand, which could consequently generate valuable post-graduate research.⁵

Another obvious advantage of more African-based courses would be the broadening of knowledge of our own cultural milieu and consequently a better understanding of the social

and political forces that shape our environment. The melting pot of South African culture is an academic source which has been left largely untapped, and it offers rich and exciting prospects for students and academics alike.

The teaching of a more African based curriculum presents the lecturer, however, with a number of problems. Whereas literature on European art is virtually unlimited, there are practically no critical texts on South African art.⁶ As far as possible, projects would have to be designed with the emphasis on the use of primary, locally available material. The problem can further be circumvented by applying methods gleaned from the literature on other African art to one's study of South African art. Projects would furthermore have to be formulated in such a way that each student, including rural students, can draw from his or her own environment. The thematic approach will however make it possible for students to concentrate on areas of their own choice. Students based in Europe, for instance, need not do a Southern African topic, but may focus instead on traditional African Art (on which literature is plentiful).

Despite the fact that the black student number in our department is small compared to, for instance, Economics or History, we feel that all our students stand to benefit from the revised course structure. Fine Arts students in particular may find that a greater familiarity with traditional African and contemporary Southern African art could help them to locate their own art historically and encourage them to draw from and understand their own cultural environment. The Fine Arts staff at UNISA has in recent years designed numerous projects which enable the student to explore topical concerns. Our new approach to History of Art should forge a greater link with the policies of the Fine Arts staff and contribute significantly towards bridging the gap between art theory and practice.

I believe that, like most disciplines of the Humanities, Art History cannot function within an objective framework; any methodology one chooses to work with inevitably involves ideological choices. The thematic teaching approach incorporates diverse methodologies and areas of study. The study of feminist and African art, for instance, involves methodologies which challenge those ideologies commonly espoused in literature dealing with male-produced European art. The thematic method thus ensures the avoidance of andro- and ethnocentrism.

Endnotes

1. Particularly when we consider that the average age of UNISA students is considerably higher than that of students at most residential universities. The average age of black UNISA students is 33 years.
2. This, despite the fact that in an average year more than 70% of UNISA's History of Art students are women.
3. Whilst restructuring of the first and second year courses has, for the most part, merely entailed a re-organisation of the syllabus into a thematic rather than chronological structure, an additional study component has been introduced in third year i.e. a compulsory section on traditional African and Southern African art.
4. This problem is compounded by the fact that UNISA study material contains mainly black and white illustrations. Slides are included, but at great cost.
5. The opportunity for original fieldwork research is currently offered to History of Art honours students.
6. This is, however, rapidly changing as more and more art historians choose to do research on a South African topic.

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'FORGET AND FORGIVE HER SEX': INTEGRATING WOMEN ARTISTS WITH ART HISTORY

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The first courses in women's art studies were taught in the U.S.A. in 1970¹ and one should not have to advocate the inclusion of women's art in the South African art history syllabi in 1987. That I am doing so can be explained by our essentially conservative and sexist society. I will argue for the study of women's art in relation to society in Southern Africa in general, and the UNISA student in particular.

The title of this paper is a reference to an incident which typifies the attitude adopted by patriarchal communities to creative women. In 1931 Princeton University conferred an honorary degree upon author, Willa Cather. Louise Bogan, writing in the New Yorker, rejoiced that, owing to Cather's status, Princeton was willing 'to forget and forgive her sex'.²

In the visual art, as well as the literary world, the creativity of women has been acknowledged on terms defined by men. Sexual attitudes and assumptions have defined both 'art' and art history. As one nineteenth-century commentator proclaimed:

The woman of genius does not exist. When she does,
she is a man.³

In the case of artist Rosa Bonheur (1822-1899), this is almost literally true, except that she had to obtain permission from the Parisian police to adopt male dress, attire infinitely more suitable for drawing in an abattoir than was a crinoline.⁴

The modern movement in art history (c. 1850 onwards), as it has been taught in Western universities during most of the twentieth century⁵, indicates that the discipline restricted its parameters when it adopted Modernist premises. It is not the Formalism inherent in Modernism that is to blame - Formalism is essentially a language - but the ideology of Modernism. This promoted a linear, progressive concept of style and it sidelined individuals

who were not accommodated in group activities motivated by avant-garde theory. It also marginalized national styles and cultural expression which deviated from the Eurocentric model. (English art has never been taken as seriously as French or German art in histories of Western art, and black art was for long the province of anthropological and not art historical study.) Modernism also emphasized art appreciation at the expense of history, thus eliminating awkward social issues.

The reasons why art institutions adopted Modernist perspectives so readily are located in political ideology. What is taught or omitted from curricula contributes to changing or maintaining the status quo of the social system. The art history taught in Western universities, especially the history of the modern movement, has helped to promote a Eurocentric, middle-class, male hegemony, and a capitalist system which has subverted radical art by purchasing it and imbuing it with investment value.⁶

Information repeated often enough in print assumes canonical status. Such statements as 'there are no women artists of significance' were accepted as facts by students because women artists - and there are many - were excluded from text books,⁷ and their works were relegated to museum cellars. Through circular argument and the suppression of information, it was possible to perpetuate the idea that art was a profession for men because there were professional male artists. They alone guided art along a path of 'development'.

Until the challenge from Feminism, art history was a culture-bound, political construct erected primarily by male art historians.⁸ Art was defined as art if it was made by men, and as mere decorative art or craft if made by women. The situation in the nineteenth century in Europe polarized. There were no women artists of stature because only men made art professionally; women could not aspire to be professional artists because they were not admitted to training institutions, or once they were permitted to study, they were denied access to a full programme.⁹ Middle-class women were encouraged to be accomplished but not to be wage earners, and lower-class women who were wage earners were deemed to be making craft, not art. In short, gender and class dictated activity, and artistic activity was controlled by the bourgeois male whose capitalist values discouraged female productivity. Those women brave enough to enter the nineteenth century art

world adopted male criteria and, in many instances, suppressed their sexual identities.

In a conservative, patriarchal, capitalist society such as South Africa, culture is seen as an adjunct to the system of white male dominance. Tertiary education institutions have either actively promoted an interpretation of art history which supports nationalist ideology, or have adopted the expedient practice of teaching courses with a Eurocentric bias, in the belief that Western male-formulated values are 'universal'. In effect, art history has either been distorted to maintain the status quo, or taught in good conscience from perspectives which fail to acknowledge their inherent critical bias.

In the West, Feminist art historians have challenged hierarchical thinking and the concept of stylistic progress. They take cognisance of the methodologies that have evolved in other disciplines, and locate important analytical tools in linguistics, psychoanalysis, Marxism, and deconstruction, although in some quarters pluralism is a contentious issue. Whether a particular female aesthetic exists is also still the subject of debate, but one fact is clear: while art itself has no gender, the artist is male or female, and biological, visual, linguistic, psychological and cultural experiences modify, extend or suppress creative expression.

Women's studies courses in Western universities address two main areas - art made by women, and the image of woman in art. Both of these areas warrant serious attention by South African art historians if art history is to assume greater relevance to the student body and to society at large. Mainstream art history must be questioned and the social character of art - in the Western world and Africa - must be acknowledged. The issue is not one of merely including information on women artists in existing courses, but of applying a critique of art history itself. Art history is not an ivory tower discipline; it is an institutionalized, ideological practice which contributes to the social system by dispersing images and interpretations of the world through study material and a lecture programme. Furthermore, art historians work in the community as well as in educational institutions, participating in art museum activity, serving on juries, and writing critiques in specialist journals and newspapers.

In the 1970s when Feminism first had an impact on art history, separatist women's studies courses were designed. This enabled teachers and students to focus on research, to develop a history of women artists and their iconography, to organize exhibitions, and to accommodate student needs. In South Africa today, I consider that women artists must be integrated with art history. I am - on principle - opposed to a separatist status for women artists in a society where separatism is associated with the ideology of the ruling party. In addition, I see separate courses in the history of women artists as impractical in our tertiary education system at large, and at UNISA in particular. I also believe that we should regard art as a humanistic discipline. Issues pertinent to art made by both sexes, of all epochs and cultures, must be raised and the artwork should be studied as a social and aesthetic document.

South African art historians must give attention to two lines of enquiry: teaching the history of women artists in relation to men artists in Western art, and teaching about black and white women art makers in Southern Africa in relation to a fractured and pluralistic society.

In the first instance - Western art history - factors emerge that are relevant to women because they demonstrate achievement in comparison to variable levels of encouragement and restrictions at different times. Artemisia Gentileschi can be studied with Caravaggio in terms of style and iconography. The painting of Rachel Ruysch and Clara Peeters can be examined in the context of seventeenth-century Dutch still-life painting. Problems such as the imbalance between the status of women portrait artists and powerful men such as Sir Joshua Reynolds can be explored. The relationship between art and revolutionary France should take cognisance of Elizabeth Vigée-Lebrun and the followers of Jacques-Louis David. Research on Russian revolutionary art has to acknowledge the contributions of Goncharova, Popova and Exeter amongst other women. Morisot and Cassatt cannot be overlooked in the history of Impressionism, and a multitude of Victorian women artists help to extend studies on British iconography, and social values. These topics are a few of many on women artists in most Western art history courses today.

South African art historians should also be considering Southern African art. White women have made important contributions to our art history -

Laubser, Stern and Everard for example, but we lack a basic text on women artists. Esmé Berman's Art and Artists of South Africa¹⁰ has two hundred and one entries on individual artists (as opposed to entries on groups which include short individual biographies). Of these individuals, fifty eight are women.¹¹ This figure is surprisingly low considering that this society is disparaging about careers in the arts for men, and supportive of women making art. But the economic structure and the art system, both of which are allied to the political power base, encourage white, male wage earners. Art is regarded as a profession for men and as a hobby for women, notwithstanding the greater ratio of women to men in all visual arts studies. Society only appears to tolerate and encourage women artists. As long as their art content is not socio-political, but remains within the precincts of bland, naturalistic flower or landscape painting, art is seen to be a feminine accomplishment capable of yielding pin money.

Black women artists have also made a significant contribution to art in traditional African communities. This area of creativity is almost wholly unacknowledged. Traditional object-making is totally integrated with rural life styles; art is functional and purposeful. Wall paintings, pots, dolls and beadwork serve an aesthetic which is meaningful at the deepest levels of existence. For far too long Western-educated researchers have dismissed the work of black women as 'craft'. A Feminist art-historical critique questions that assumption, and the whole concept of object classification.

At UNISA we need to take cognisance of students and staff. Seventy five percent of our art history students are women.¹² The majority are mothers and many are teachers, and a large number are, or intend to be artists. It is absurd to teach them exclusively about art made by men, and to promote evaluative and critical constructs designed by men to define the aesthetic and social significance of their own creativity.

To increase the relevance of art and architecture for women students and to improve their self esteem, our syllabi must accord greater prominence to women artists and to the social relationship between women and creativity. At UNISA we already have the infrastructure to do this. We currently focus on particular areas of the syllabus, especially in the third year (nineteenth- and twentieth-century studies). In proposals for a revised

syllabus - currently under consideration - we have devised a strategy for increasing syllabus flexibility by dealing thematically, rather than chronologically, with the modern movement. Women artists already feature in our teaching, and a Feminist critique will be adopted in the revised syllabus. In the post-graduate Honours course, an option on nineteenth and twentieth century women artists is offered.

In a country which accords a second class status to women, the history of women artists indicates that biology is no barrier to art-making. If women are informed about the social and economic barriers erected to impede female advancement, they will enter the art world more confidently as artists, museum personnel, and critics.

A broader syllabus is beneficial to art history staff as well as students. The study of women's culture promotes new research topics such as projects on individual women artists or particular communities, the influence of culture on female creativity, class and racial attitudes to image-making, opportunities for black rural and urban women in art and craft, the documentation of women artists in the history of South Africa, and the development of a data bank of slides, of work by women and images of women in South African art. Because of the interdisciplinary nature of women's studies, both the researcher and the student get the opportunity to practise a wide range of advanced methodologies in their research projects.

Research should be guided by questions about the art object - how and why was it made, who made it and for what purpose, what constraints or freedom did its maker know, who was the audience, and how is it currently assessed as a social and/or aesthetic form? Answers to some of these questions inevitably relate to findings and criteria in other disciplines. Women's studies are interdisciplinary in nature, and research into women artists aligns art history with literature, sociology, psychology, theology, anthropology and philosophy. Increased contact between colleagues at a time when universities must re-define their role in a changing society can only be beneficial.

Reference to two images of woman, by women artists, summarizes much of the foregoing argument. The first is called Reading Le Figaro (c. 1878).¹³ It is by a white, middle-class, American woman painter of independent means

who never married, and who spent most of her career in Paris. She is Mary Cassatt (1844-1926). She depicts her mother. The painting generates questions about style - is it Realist or Impressionist, and what was Cassatt's relationship to Impressionism and to Degas? The iconography prompts one to ask why a woman is reading a newspaper. There are plenty of images of men reading papers,¹⁴ but most images of women painted by men depict the industrious middle-class woman busy with needlework, or sitting idle, while the lower-class woman is shown earning a living - Degas' laundresses for example.

Mrs Cassatt, perhaps because she was an American, was not content only with trivial pursuits. She is reading not a novel for entertainment but Le Figaro to inform herself about the world. She is absorbed in the activity and uninterested in the spectator. Her daughter is not content to paint stereotypes; she looks at her world, and in so doing she interprets the image of woman in the context of social and class distinctions in the late nineteenth century.

The next image is Portrait of Annie Mvata (1956).¹⁵ It is by a white, Irish-born woman painter who settled in South Africa in 1910 and spent most of her life in Port Elizabeth. She is Dorothy Kay (1886-1964). She depicts a black domestic worker. The painting generates questions about style - its realism and illusionism are akin to, but in advance of the photorealist movement. The iconography prompts one to consider the social structure which permits white women to make paintings and black women to work in kitchens. It conveys information about mid-twentieth-century life in Africa. But the image itself talks about an individual woman with human dignity; it reveals a woman who confronts life - the artist and the viewer - and who is intensely self aware.

The third image is not a portrait of a particular woman. It features traditional African art.¹⁶ The work is by an anonymous woman artist of the Ndebele tribe. The objects generate questions about definitions of art and craft. The iconography, which requires de-coding in the light of ethnographic information, informs us about tribal, ritual practices, pertaining to women in particular, and the well-being of the community at large. The appearance challenges concepts of aesthetic beauty, forcing one to consider whether technical skill, the integration of colours, and the representation

of the human form can be valued when isolated from the social context.

Kay is a much less significant painter than Cassatt in a global context, but significance itself is judgmental. And with regard to the black woman artist, we must remember that Anonymous was - and is - a woman. Women artists must first be integrated with art history before evaluative criteria can be formulated. In order to undertake integration - to redress existing imbalances in art history - we must remember and exalt in our sex.

NOTES

1. Linda Nochlin and Judy Chicago pioneered studies in art history and art-making respectively.
2. Louise Bogan, 'American-Class', New Yorker, 8 August 1931, and quoted by Carolyn G. Heilbrun in 'Bringing the Spirit back to English Studies', The New Feminist Criticism, (edited by Elaine Showalter), p.27.
3. Cited in Octave Uzanne, The Modern Parisienne, and quoted by Griselda Pollock, 'Women, Art and Ideology: Questions for Feminist Art Historians', Women's Art Journal, Spring/Summer 1983, vol. 4, no. 1, p.40.
4. Bonheur, like most men artists of her day had a 'wife'. Her companion, Nathalie Micas kept house for her. English painter, Anna Lea Merritt, wrote 'The chief obstacle to a woman's success is that she can never have a wife.' (Lippincott's Magazine (1900) and quoted in Canvassing: Recollections by Six Victorian Women Artists, (edited by Pamela Gerrish Nunn), p.67.
5. I refer to nineteenth and twentieth-century Western art because in this period literacy increased, the media expanded, images as well as ideas circulated more freely, industrialization and urbanization changed the economic structures of European nations, and bourgeois capitalism secured its power base. The relationship between art, gender, race and class becomes even more complex than previously.
6. Once the middle class eye accommodated the innovatory visual style of Impressionism, it found the iconography reflected bourgeois values. Collectors started to purchase Impressionist paintings; these have continued to appreciate on the art market. Contemporary artists who have deliberately challenged the dealer system and marketability of art by working on large scale projects in remote environments, have found inaccessibility has not daunted entrepreneurs. In 1985, the Los Angeles Museum of Contemporary Art acquired Michael Heizer's 60 acre earthwork, Double Negative (1969). The museum plans to promote expeditions to see the piece. Even performance art, theoretically of a temporary nature, and operating from a different rationale to object making, can be 'owned' through documentation.

7. Gardner's Art Through the Ages, Janson's History of Art, and Gombrich's The Story of Art must have been used by hundreds of thousands of art students during the decades when these publications did not mention one woman artist. When Janson was asked if there was hope that he might include women in a new edition of his book (an update of the 1978 edition), he replied, '... at least until the most recent edition I have not been able to find a woman artist who clearly belongs in a one-volume history of art'. (Quoted by Eleanor Tufts, 'Beyond Gardner, Gombrich and Janson: Towards a Total History of Art', Arts Magazine, April 1981, p.151.)
8. Until recently in the U.S.A. women were an extreme minority as tenured teachers in universities, and had little influence in effecting curricula changes. Courses were designed by men in terms of criteria which reflected male assumptions about the significance of artists, movements, media, and aesthetics.
9. The Royal Academy, London, denied that it discriminated against women, but it had no women students until 1861 when Laura Herford signed her application, L. Herford, and was accepted mistakenly. Once in training establishments, women were not permitted to work from the nude although artistic capabilities were assessed on the basis of the rendition of the figure. Women at the Royal Academy schools finally gained permission to work from the nude (in segregated classes) in 1893.
10. Esmé Berman, Art and Artists of South Africa. Cape Town: Balkema, updated and enlarged edition, 1983.
11. This ratio must be put in perspective. Many women are listed in group categories. Nevertheless, some factor ultimately led the author to select particular artists for exclusive biographical and critical comment. Another bias in this text is its weight in favour of older artists in comparison to younger artists who have achieved prominence.
12. All UNISA art students study three years of art history. Students are both Fine Arts and B.A. students. Those who fulfil the entrance requirements may continue with the post-graduate Honours course. Fine Arts students complete a fourth undergraduate course in art criticism and contemporary theory.
13. Mary Cassatt, Reading Le Figaro (c. 1878). Oil on canvas. 101x81,3 cm.
14. For example, Cézanne, The Artist's Father (1866) and Degas, The Cotton Market, New Orleans (1873).
15. Dorothy Kay, Portrait of Annie Mvata (1956). Oil on canvas. 69x57 cm. Pretoria Art Museum.
16. Anonymous. Traditional African art: Ndebele dolls.

GENERATING A CREATIVE FUTURE : STRATEGIES FOR THE TEACHING OF
CREATIVITY WITHIN THE CONTEXT OF DISTANCE EDUCATION SYSTEMS

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1. OUTLINE OF THE PARAMETERS OF THE PAPER

The aim of this paper is to speculate on the theoretical infrastructure of a model or framework which could be used in determining a pedagogics of creativity. The paper reflects a specific perspective on art education and its social implications, and presents deliberations on an ideal blueprint for a pedagogics of creativity geared to prepare the individual for creative entry into the 21st century.

The paper is intended to induce a re-consideration of certain primary questions: What is art? What is the function of art? What do we perceive as being the character and challenges of the 21st century? How is creativity linked to these challenges?

It is thus hoped hereby to induce speculation on the theoretical context within which the teaching of creativity may occur.

The paper should function in conjunction with the paper of L. du Plessis and J.P. van der Watt, 'The Artwork: from Concept to Realization,' which

delineates pragmatic strategies devised by the Fine Arts section of the Department of History of Art and Fine Arts at UNISA to facilitate and permit the teaching of art within a distance education context.

The two papers read in tandem should present a theory of pedagogics sufficiently broad and resilient to allow entry into the 21st century, with an appropriate methodology to permit its application within distance teaching contexts.

2. NOTE ON TITLE AND PRESENTATION OF PAPER

Subsequent to the formulation of the abstract and the title of this paper, we came to the recognition that our focus would be on the title - GENERATING A CREATIVE FUTURE - rather than on the subtitle, which would entail delineation of strategies for the teaching of creativity within the context of distance education systems. We decided that it was of prime significance to discuss the theoretical framework which would govern a pedagogics of creativity.

We feel that if one is attempting to link the pedagogics of creativity with the generating of creative social futures, it is necessary to explore the concept of creative potentiality, rather than to concentrate on the specific pragmatics of the implementation of a pedagogic system, whether in a distance or non-distance teaching situation.

The intention of this paper then, is to discuss the core theme - GENERATING A CREATIVE FUTURE - and within this context to propose that the generation of a creative future is dependent on our capacity to visualize creative options. What will be explored is the way in which the creation of an art-work serves as a metaphoric indice of our human capacity to invest reality with creative potential.

The paper which we are here presenting is meant to offer allusions; to

provoke and catalyze thought - rather than to extensively expound on the points raised.

The paper has been scripted as a multi-media event, incorporating a slide presentation, and a participation sequence - rather than being a univalent, cognitive presentation.

This allusional and multi-media mode is utilized because of its consistency with the paper content. It is in the nature of the creative enterprise that understanding occurs in a two-fold manner - via reasoned argument, and via intuition and experience. While in this paper a reasoned argument is presented, the intention is that it should induce desire for experience, and that the experiential component of the presentation will provide an alternate route to an apprehension of the meaning of the model.

It must be stressed that if we concern ourselves with a model whose aim is to capture the constituent characteristics of the creative process and its implications, our mode of alignment with the ideas will be both analytical and synthesizing - will be dependent on the active participation of both the logical and intuitive faculties of understanding. Thus the ideas presented in the paper should not be seen to function independently - the slide presentation which will accompany the paper, the participation element in the presentation, and even the exhibitions of the lecturers and students of the Department of History of Art and Fine Arts at UNISA, which are being held concurrently with the conference - should be understood as adjuncts giving substance to theory.

3. PAPER CONTENT SYNOPSIS

There are two major points which we wish to make in this paper, regarding the issues of education, education towards creativity, and education of creativity toward the 21st century.

The first point has to do with the 21st century as phenomenon, and our relationship, as educators, to this phenomenon.

The second point has to do with the artistic act as metaphoric of our capacity to generate possibility, to constitute reality, to become co-creators of the world, the future.

We will deal with these points in turn.

4. THE 21ST CENTURY AS PHENOMENON

In discussing the phenomenon of the 21st century, we are taking up a particular stance regarding its potential character. In this regard, we are aligning ourselves with authors such as, for example, Jean Houston, Marilyn Ferguson, Fritjof Capra, Richard Brown, Anthony Giddens, and Michael Lindfield, who, amongst others, are probing the possibilities of developing a new paradigm, in order to understand, as well as to engender, the potent creative engagement of human beings in the continuing development of the social fabric.

Features of the new paradigm include the following:

As a root assumption, one has to begin with an acceptance of our unique capacity as human beings not to be bound by a determinist inevitability which is presumed to be innate in the 'organic' structure of the historical process. Thus one focuses on the capacity of human beings, as human beings, to themselves direct the shape of the transformation of the historical process. This vision of human beings is based on a specific conception of the relationship of people to the social process, whereby people are seen as active constructors of the social reality within which they operate, and which forms the context of their continuing action. In the equation of reciprocity between human beings and their social world, human beings are seen as constructors of the very

reality which in turn comes to shape their conduct.

Giddens (1982 : 14) offers a useful analogy in order to elucidate the dialectical relationship embodied in this equation. He suggests that we conceive social systems as "like buildings that are at every moment constantly being reconstructed by the very bricks that compose them."

Using this analogy as initiating axiom, he is able to point to the capacity of human beings to participate in the construction of the social process, while recognizing that this participatory action is a reciprocative response to a social dynamic.

What is important in this argument is that while it acknowledges that a given social dynamic tends to attain its own momentum, in that it functions as an arena of constraints defined by previously constructed social forces - traditions, institutions, norms, values, and in short, realities - it simultaneously insists that we as human beings have the capacity to imagine and realize new futures: That we have the capacity to imagine alternatives by reflecting back on our past, imagining new possibilities, and making exponential leaps which arise out of an expansive consideration of the multivalent options available to us at this time in history.

Where the new paradigm differs from other paradigmatic views on the process of social change, is in its insistence that the choices available to us are not to be reductively channelled into either/or, yes/no, oppositions which by their inflexible and dogmatic exclusivity, generate a history of pendulemic swings from one extremity to the other. The new paradigm then, has a particular view on choice-making and delineation of options - which it hopes are to characterize the 21st century.

The argument is that historically we have been bound and locked into patterns of reductive optioning, where cultures have favoured either intellect or intuition, mental or sensate apprehension, patriarchy or

matriarchy, capitalism or socialism - and in this way they have not come to grips with the contradictory impulses of the human psyche, and of the creative manner in which these contradictory impulses can be utilized and transformed.

The new paradigm then, appeals to, as Jean Houston (1982 : xix) puts it, "the capacity to think on multiple tracks at once, and even the ability to tap, at will, into the symbolic and mythic dimensions of the self." In this way, the new paradigm calls for a type of imagery and creativity which allows for the transcendence of a one-track mind dichotomizing of reality into either/or options. It demands, indeed, that we reassess entirely all of our either/or categorizations, and thus move towards a new definition of truth. Truth here is no longer seen as a univocal reflection of what is best or true or right in an absolute sense. For this absolutizing of truth necessarily leads to a diminished tolerance - a diminished ability to empathetically or cognitively comprehend the 'truth', or rather point-of-view, of the other.

Truth as absolute leads to a contraction of the self's potentiality to expand, that is, to expand through a genuine confrontation with an alternative perspective with which it is not yet familiar. At its most generous and most expansive, consciousness is able to recognize the truth/point-of-view encompassed by the other, and through this recognition is able to unite contradictory truths within itself into a unified/poly-dimensional whole.

Patently, a consciousness which is able to dialectically unite the contradictory points-of-view with which it is confronted - in such a way as to transcend their reductive and absolutist character - is a resilient, and hence dynamic and ever-shifting consciousness. It is not a fickle consciousness, but an expansive consciousness - one which is able to enter into creative co-existence with other egos, so that together self and other participate in the dance of diversity, while constituting a reverberant mutuality.

What is important here is that we recognize that a notion of 'flexible truth' permits for the accommodation of the position of the other, as well as for the expansion of the content of one's own consciousness, as it attempts to confront ever-new input on an ideational and experiential/emotive level.

Michael Lindfield characterizes the potency inherent in a position of mutual recognition as follows:

"The state in which the whole is greater than the sum of its parts is called synergy...No part suffers loss of identity...What is gained, however, is a sense of belonging to a greater rhythm; of sharing a common purpose with others that can only enhance one's own creativity as it is placed within a greater context."
(1986 : 141/142)

Having outlined these core postulates of the new paradigmatic thinking, we are now equipped to consider the function of art in the process of preparing us to participate in co-generating and giving concrete realization to, this paradigmatic vision.

We will thus suggest a view of the artistic experience as a device whereby we may both picture and constitute the features of the resilient future to which we have alluded.

5. THE ARTISTIC ACT AS METAPHORIC OF OUR CAPACITY TO GENERATE
POSSIBILITY : ACQUIRING THE SKILLS FOR STEWARDSHIP TO
THE NEW ERA

In outlining our view of the artistic experience, we are going to isolate what we consider to be the constituents of the metaphor of art-making. In so doing, we hope to reveal that the process of social change is the exotype of the microcosmic process of creative artistic expression.

We hope to show that the artistic determination to transform vision into meaning, imagination into practical expression, is a process of acquiring the skill to creatively construct new order and new realities through our practical endeavours.

The creation of every work of art is characterized by a moment of awesome and irreversible emergency - a moment of profound terror in contemplation of the void, of absence, of chaos. This archetypal moment may last for hours, days, weeks, even months - with the artist chained tightly to the wheel of uncertainty and desperation. However, it is clear that resonant in every completed work is the metaphoric fact that out of emergency emerges new vision - we emerge to see new orders, new complexities of refinement, we alter consciousness through the capacity to absorb and confirm greater levels of diffusion.

Implicit in this sequential process - this movement from anarchy to expressed resolution - is that one is constantly aware, on all levels of experience (including conscious cognition and intuitive apprehension) of a myriad of options of direction available.

These options are not always manifest, but must be cajoled into being, cajoled in many cases via a conscious or unconscious 'brain-storming' session - within which one makes reference to collective history, and to personal memory, myth, symbol, knowledge. One scans public and private archetypes, searching for a route of extension which will possess both authenticity and a sense of challenge. Thus one enters the arena where the unique self confronts its historical correlates or relations, expanding through this meeting with the 'ancestors' - to become more whole. And, conversely, one enters the arena where the socially transcribed identity confronts its own restrictive moulding, and seeks to redeem itself, to extract from imposed definitions its own unique resonance. In this instance, the individual pursues the expression of a particularly private universe, celebrating the fact that each of us possesses a greatness which is our own unique individual history, our

own unique individual calligraphy, our specifically individual response to the complexity, drama, and grandeur of human existence.

What we are suggesting is that this process of artistic expression mirrors the dynamic of creative expression necessary in the social context - i.e. necessary if we are to establish a reality in the 21st century which truly reflects the essence of the new paradigm outlined above, where an appeal is made for a resilient and expansive consciousness, which might transcribe its generosity on the map of history through an excavation of future possibilities.

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What is clear from the above is that to enter into the theatre of artistic experience is to enter into the realm of images, the realm of the imagination. To imagine what does not exist, is to have encountered the realm of transformation, the realm of generating new futures. For the imagination can be stimulated to image as yet unforeseen possibilities. And what we image, we generate as manifestation on the external map of history. The closer we can approach the generative center where primary imaging takes place, the more likely we are to take responsibility for yielding alternative futures.

Once we acknowledge the plasticity of the image-making faculty - the fact that this is not a rigidified or crystallized faculty, but rather an active faculty which may be nurtured, and taught the mechanics of its own functioning - we are on route to participating in the emergence of the new century, we are on route to generating the coming-of-age of our collective participatory consciousness.

We hope via the event of this paper to have offered our contribution to a celebration of the coming of the new era, in which collectively we will not simply reproduce old stereotypes, but rather image and co-generate a richer, more dynamic, holistic social process.

Note:

In this paper we have chosen not to address questions regarding the application of the new paradigm within the context of Southern Africa.

However, we believe that although the paradigm as we have presented it in this paper has found articulation primarily in philosophic and social thinking arising currently in America and Europe, the principles of the paradigm offer a sufficiently broad infrastructure to allow for applicability in our particular context. Of course, as it is applied here it will take on specific shape: a shape which, if it is true to the constructs of the paradigm, will honour the fact that it is only through creative exploration of the dialectic of possibilities which today confront us in the Southern African context that we will be able to construct a future acknowledging and unifying the multivalent dimensions which we have as our resource.

6. CONCLUSION : COGNIZING THE PARAMETERS OF THE PAPER

The deliberations in this paper are admittedly clearly not addressed towards the specific problems of distance education, and technologies and methodologies that may make this distance education more effective. It has not been our intention to explore the various external technologies that might engender efficacy in dealing with a democratization of education, nor methodologies that might aid in translating residential teaching practice to a non-contact oriented teaching situation.

Patently, all of the above issues are of profound importance to our teaching situation. But it seems to us that in addressing the

question of how we are to enter the 21st century, in addressing the question of education toward the 21st century, our emphasis should not be primarily on issues of technology, or even the pragmatics of democratic education, but rather on questions of value, responsibility, and human potential. We believe that it is only by articulating a poetics of creativity that we can, as Richard Brown, in his 'A Poetic for Sociology' (1977 : 229) puts it, lay the groundwork which can "help bridge the gap between questions of technical efficiency...and questions of values and human needs."

For us then, the question of primacy is the re-addressment of the creative values and attendant paradigm which are to inaugurate the 21st century, and the placement in that context of the dynamics of art education, or education toward creative transformation of personal/ social reality.

.....

To summarize then, this paper does not directly concern itself with the issue of distance education. Neither does it concern itself with speculations regarding technological innovations which may facilitate the presentation of content with which we are already familiar. Rather it attempts to place emphasis on the fact that, co-existent with technological and pragmatic considerations, it is necessary to constantly keep in mind our responsibility towards a reconsideration of the content of our teaching.

And by extension it implies, at the source of the teaching endeavour, a reconfrontation with the imagery (imagination) whereby we both reveal, and in this process of revelation, help to co-create the dynamics of a reality with which we can affiliate ourselves - a reality sufficiently resilient to incorporate the myriad dimensions of possibility which the human species, allowed the space and freedom to explore its potentiality, may manifest.

LIST OF SOURCES CITED

1. Brown, Richard
A Poetic for Sociology: Toward a logic of discovery for the human sciences. Cambridge University Press, Cambridge: 1977.
2. Giddens, Anthony
Sociology: A brief but critical introduction. Macmillan, London: 1982.
3. Houston, Jean
The Possible Human: A course in enhancing your physical, mental, and creative abilities. J.B. Tarcher, Los Angeles: 1982.
4. Lindfield, Michael
The Dance of Change: An eco-spiritual approach to transformation. Routledge and Kegan Paul, New York: 1986.

ADDITIONAL SOURCES

1. Bronowski, Jacob
The Visionary Eye: Essays in the arts, literature, and science. M.I.T. Press, Massachusettes: 1978.
2. Capra, Fritjof
The Turning Point: Science, society, and the rising culture. Fontana Paperbacks, London: 1984.

3. De Bono, Edward
Practical Thinking. Pelican, England: 1977.
4. Ferguson, Marilyn
The Aquarian Conspiracy. Routledge and Kegan Paul, London: 1980.
5. Fuller, Buckminster
I Seem to be a Verb. Bantam Books, New York: 1970.
6. Houston, Jean
The Possible Human: The Possible Society. Tape produced by Planet Tapes, California: 1983
7. Illich, Ivan and Verne, Etienne
Imprisoned in the Global Classroom. Writers and Readers Publishing Cooperative, London: 1981.
8. Kumar, Satish, ed.
The Schumacher Lectures: Volume 2. Sphere Books, London: 1986.
9. LeBoeuf, Michael
Imagineering. McGraw-Hill, New York: 1982.
10. Roszak, Theodore
The Making of the Counter-Culture: Reflections on the Technocratic society and its youthful opposition. Faber and Faber, London: 1969.
11. Taylor, Gordon Rattray
Re-Think. Penguin Books, England: 1974
12. Thompson, William Irwin
Passages about Earth: An exploration of the new planetary culture. Rider and Company, London: 1974.

13. Toffler, Alvin
 Learning for Tomorrow: The role of the future in education.
 Random House, New York: 1974.
14. Zais, Robert
 Curriculum: Principles and foundation. Harper and Row,
 New York: 1976.

NON-FORMAL AND FUNCTIONAL DISTANCE EDUCATION IN
SOUTHERN AFRICA

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Introduction

This paper will primarily address non-formal and functional distance education in the Third World setting of Southern Africa. Its main concern is with what is often termed "education for self-reliance". It does not, therefore, address the more "formal" part of non-formal education such as artisan training, in-service training, and updating of knowledge.

The main focus will be on the development question, which is as much a problem in Southern Africa as it is elsewhere in the Third World, and the ways and means in which non-formal and functional distance education can be applied as part of the solution. However, this paper is not intended as a critique on the mechanics of mass-media for development. Apart from reviewing some of the efforts at using the media of distance education for development, I would much rather look at the development administrative imperatives for non-formal distance education for development.

The development question

Development has become both a slogan and a very serious issue in the Third World today. Three decades of development have brought some economic growth to certain sectors of many Third World countries, but have not succeeded in easing the plight of most people living in these areas. Through the years various problems related to development have been

identified and many solutions (some good and some bad) have been offered and tried. Practitioners, researchers and policy makers have come to realize that the development question is much more complex than was originally thought. Many years of failures, frustrations, soul-searching and research have brought new dimensions of knowledge and new perspectives to the fore. Perhaps we are only now moving into the era where, it may just be possible to start to address the problem of development efficiently. It has taken libraries of books, billions of dollars and hundreds of thousands wasted lives to reach this stage. One of the very important issues right now is the role of non-formal distance education in development.

Thirty years ago two issues dominated the development scene. First it was thought that heavy investment in the under developed areas of the world would create industries and infrastructure which would get the economies of less developed countries going (Rondinelli & Ruddle 1978: V & VI). Secondly it was believed that the opening up of at least primary education to all would enable those educated to take part in the new vibrant economies (Bock & Papagiannis 1983: 4; Simmons 1979: 1005). Today we realize the naivety of such an approach. Heavy investment in the industrial sector of Third World countries led to highly inequitable growth patterns, both among countries and among population groups and geographical regions within less developed countries (Rondinelli & Ruddle 1978: 3). It was also found that formal education was elitist in nature and therefore also inequitable. In addition some 121 million Third World children of primary school age do not attend school and many countries have failed to achieve the target of primary schooling

for all by 1980 which was set in the early 1960's (Tanguiane 1983:5).

The failures of past decades forced us to look at the fundamentals of the development problem. Over the years it became apparent that basic to the problem was the dire poverty of the overwhelming majority of the inhabitants of Third World countries and particularly of those finding themselves in the rural areas. It was discovered that 600 to 800 million people, or about 40 percent of the total population of the Third World, was living in absolute poverty, that is, at less than an annual per capita income of \$50 (Coombs 1980:9). This dire poverty prevented most of its victims from benefitting from large investments and the creation of sophisticated industries. In the same vein formal education in modern school buildings according to curricula copied from the West had very little meaning and gave small opportunity to those engaged in a day to day struggle for survival.

In short, most rural dwellers in the Third World are caught up in, what Chambers(1983:109) describes as, the deprivation trap; a poverty from which they cannot escape and which cannot be addressed only by industrial development in big cities and by a formal education system in which the urban areas also have the best schools and teachers.

When we look to non-formal distance education as a means to break the deprivation trap, it is necessary to take note of the intricacies of this trap. It is important to note that we are not primarily concerned with the poverty of the

individual. In the rural areas of the Third World the household is the production unit and it is the poverty of the household, consisting of the extended family unit, that needs attention. Household poverty manifests itself in four ways (Chambers 1983:109 & 110).

First, the household is physically weak. There is a high ratio of dependants to able-bodied adults. Dependants include children, the aged, the handicapped and the sick. Sometimes the father of a household is more or less permanently absent and the wife has to head the household. This leaves her in charge of child care, food production and processing, cooking, fuel gathering, household chores and, in addition, earning a livelihood, and this in an environment where the undernourished human's own strength is often the only source of power. In the absence of family planning there are usually a number of small children needing attention and special care. Sometimes adults who should have been productive are so weakened by accidents or illness that they cannot contribute their quota of labour. Children suffer learning disabilities because of malnutrition. The household as a whole is under-nourished and weakened by a combination of parasites, disease and malnutrition.

Second, the household is isolated from the outside world. It lives far from the nearest town and within its own area it is often remote from shops and meeting places. Poor infrastructure and a lack of transport facilities severely restrict movement. Because the members are usually illiterate they are ill-informed about events outside their immediate neighbourhood. The children either do not go to school at all or

do so for a short period only. They are very rarely visited by government and aid agency extension officers.

Third, the household is vulnerable with only a few safeguards against contingencies. Very modest needs can be satisfied only by drawing on a limited store of cash, by borrowing the money somewhere or simply by cutting down on consumption. Disasters such as droughts, floods, fire and accidents cannot be averted. Social obligations such as funerals, brideprice, the cost of a wedding or a lawsuit can be financed only by incurring more debt or by living even more frugally.

Fourth, the household is defenceless. Ignorant of the law with no access to legal advice and competing in a hostile socio-economic environment it is an easy target for exploitation. It has little or no social status and therefore very limited bargaining power.

This fourfold disadvantage of poverty, so common among rural households, interact to produce what Chambers calls the deprivation trap, otherwise known as the vicious circle of poverty. It is this poverty situation that must be tackled in a very special way, inter alia through non-formal education and also through non-formal distance education.

Non-formal education for development

In recent times there has been growing disillusionment with the formal education system in the Third World. Many problems seem unsurmountable. Rising costs are one of the major

problems. It makes it more difficult for Third World governments to expand the system and to provide and maintain the necessary physical facilities. Population growth worsens this problem because it means that a smaller percentage of the population has access to formal education than was originally hoped. In addition, the discrepancy between the manpower needs of less developed countries and the type of training provided in the schools is widening.

It all points to the inevitability of turning more and more to non-formal education. This does not mean that non-formal education should take the place of formal education. The expansion of a relevant education system for the Third World remains imperative. There are, however, certain problems, disabilities and shortcomings that can only be addressed through non-formal education. (See Cornwell & Van Heerden (1983:13 & 14) for a more detailed discussion of how non-formal education can supplement formal education.)

It is also important to know what is meant by non-formal education. An important point is that non-formal education in a Third World setting cannot but differ from that in a First World country. At the heart of non-formal education for development lies the notion that the task of education is much broader than simply to prepare people for formal participation in the economic system. Non-formal education includes the cultivation of skills, knowledge and a level of awareness and understanding that extends beyond a person's occupational needs (Harbison 1973: 5-6). It is to these activities, which include inter alia agricultural training programmes, evening classes in adult literacy, basic

health care and homecraft, that I wish to give attention.

Normally, non-formal education in these fields is run by extension officers who pay regular visits to provide information through lectures and demonstrations to established interest groups and ad hoc gatherings of concerned individuals. This system, however, presents various problems. In the first place, there is hardly a Third World country with sufficient extension officers to cover its vast rural areas with their large populations. Consequently, visits are infrequent. In addition, roads are often so poor that extension officers spend many hours, sometimes days, travelling to remote areas, while the government is faced with heavy bills for fuel and vehicle maintenance. Such journeys are arduous and involve sleeping over in areas with very few facilities. It is understandable, then, that there is a preference for visits to people living near to main roads. Officers also favour visits to the people who already possess a certain level of expertise. As a result non-formal education of this type seldom reaches those most in need of it: the poor rural household remains isolated and ignorant and becomes less and less capable of coping with innovations that may affect its life. The shortage of trained extension officers, of transport and fuel and the sheer magnitude of the task at hand makes it imperative that these efforts be augmented through the use of mass media (Fraser 1983:24).

It is clear that the opportunities for distance non-formal education are enormous. Distance education can overcome the many obstacles in the way of ordinary non-formal and

formal education. It is able to reach where neither of the others can and it should be much cheaper than any other form of instruction.

Apart from the fact that the radio, video, slide-show, poster and even study guide may be a better form of instruction than the traditional lecture, (I am loath to express an opinion on this, since I am neither an educationalist nor a communications specialist), it is true that these media can reach a vast number of people and that they are not so severely hindered by distance and a shortage of money. Brace (1984:80) maintains that "... world-wide, radio holds the greatest promise in support of education of all kinds", and Fraser (1983:24) argues that "audio visual training systems could be of prime importance". The International College (1983a:4) comes to the conclusion that the mass media can be good teachers:

It is now well established that any educational medium can be an effective vehicle for instruction...

There are many examples of non-formal education programmes making use of these distance media. The "Zaa na Uwatunze" programme is a radio show in Swahili aimed at all adult Kenyans able to receive "Voice of Kenya" radio broadcasts and deals with childbirth and child care. The Centre of Family Hygiene in Haiti broadcasts a programme called "Radio Doctor" six days a week, twice a day, aimed at the entire adult population providing information on family planning, nutrition, common illnesses and other health problems. In addition, the Centre distributes standard messages on cassettes about family planning and maternal child care (In-

ternational Extension College 1983a:15-17).

There are also many examples of more structured non-formal distance education programmes. One of these is the long term group learning programme of Columbia's Accion Cultural Popular or ACPO, a private educational organization set up and supported by the Catholic Church. (Information on this programme comes from International Extension College (1983a: 22-25) and Simmons (1979:1011 & 1012).)

ACPO aims to provide general basic education to rural adults. Its curriculum is divided into a basic and a progressive level. The basic course teaches reading, writing and calculating skills. The progressive course gives attention to literacy, arithmetic, economics and work, religion and health. The basic and progressive courses together form what ACPO calls its "fundamental integral education" programme, aimed at motivating rural farmers to embark on personal and community development. ACPO teaches mainly by radio and printed materials. Learners listen in groups to a daily radio programme and work through the accompanying books under the supervision of a monitor. Usually several members of each group are from the same family. Meetings take place in private houses. The monitor is a local volunteer who can read and write and who is trained and supported by ACPO's parish representative. End of the year examinations are provided and up to 50 percent of regular listeners sit for these.

ACPO's programme was the first of its type in Latin America but there are now about thirty. Nearer home similar programmes have been established with some measure of success in Tan-

zania, Botswana and Lesotho.

These programmes emphasize that people can be trained for more than only filling a job in the formal sector. Education can open scopes for people without hope of finding a place in the formal labour market when it sees human beings as more than mere cogs in the machinery of production and consumption. Hartshorne (1985:41) is right when he says: "Education's first concern must be with the man, not with the worker, with people and not 'human resources'". Education aimed at helping people to break out of the deprivation trap is concerned with more than mere skills training. Simmons (1979:1016) calls it education for self-reliance, which teaches groups of people how to study together and become aware of the political, social and economic determinants of their poverty. Through their involvement in learning process programmes they not only require certain skills, but also learn how to organize themselves, identify their needs and take action to meet them - in short, they learn to become self-reliant and self-sufficient. In so doing they inevitably gain in human dignity. In order for non-formal distance education to fulfil this function, it must conform to certain conditions.

Prerequisites for non-formal distance education

There is a very wide psychological and cultural gap between the poverty-stricken rural household and the compilers of radio, video or slide-show programmes. If this gap is not bridged beforehand, distance education is about as effective as a shotgun at long range. Then the compilers of such programmes aim in the general direction of the rural poor

and hope that some of the message will strike the target. Under these circumstances the contents of programmes can only be very general and at best try to conscientize the audience. They can never be specific enough to guide people through a learning process.

Fran Korten (1983:181) has listed four key limitations of centralized, service-delivery approaches to benefitting the rural poor. They are the following:

(1) Their limited reach. Although non-formal distance education may have a better reach than any other type of service-delivery, it is to an extent also hampered by a limited reach, because while people may hear and see the message it is not to say that they have been reached, i.e. that they understand and accept it. (2) Their inability to sustain the necessary local level action. It is extremely difficult for centrally planned and broadcast programmes to sustain action at local level, and yet without that action little will have been gained. (3) Their limited adaptability to local circumstances. It must be accepted that needs may differ from one community to another. Consequently, there is often a poor fit between the needs of a given community and the contents of the service offered. (4) Their creation of dependency. The very ability of the poor to survive suggests that they are quite skilled in meeting their own basic needs, even if only at standards that we would regard as intolerable. Government programmes often try to do better what the rural poor previously did themselves. The usual result of these efforts is that the people become more dependent on the government. Non-formal distance education could fall into the same trap, but it could also reduce the

likelihood of this dependency creation by strengthening the people's own capacity for self-help.

It is clear that the first prerequisite for self-reliant education is that the local people must participate. This means "a full and constant exchange of information" (Fraser 1983:24) rather than a one-way flow. It seems clear that for various reasons non-formal distance education needs local support structures. The first task of such structures would be to disseminate further the centrally broadcast message, but it should do more than this. It should also explain the message in local terms: therefore, if need be, it must adapt the message to local circumstances and communicate it in non-technical traditional ways, like for example, care groups do with their "development" songs. It must also transform the message from mere words and/or pictures into actual doing. It should also communicate upwards, with feedback from the receivers to the senders of the message, as to how the message was received, in what ways it was good or bad, and what local problems still needed to be addressed. Needless to say, such a support structure should consist mainly of local volunteers who do not represent the broadcaster, but the target group.

Popular participation in development can be a hollow slogan, but I agree with Gow & Morss (1981:14) that it is important "to think beyond the participation slogan to something that is both practical and beneficial". I think that most people would agree that local participation in non-formal distance education is both practical and beneficial. We tend to ignore, or forget, that the rural poor have a vast knowledge of their own circumstances. Richards (1985:42) maintains that

"this ecological knowledge is one of the most significant of rural Africa's resources". Hatch (quoted by Chambers 1983: 92) is prepared to call it "the single largest knowledge resource not yet mobilised in the development enterprise". Non-formal distance education must acknowledge the fact that local people are "the world's leading authorities" on matters affecting them (Huntington 1980:15). Accordingly this knowledge and wisdom must be incorporated in the disseminated message. Local people must be allowed and enabled to make an input on their social and political environment, their tradition, values and psychological views, their life-style and the daily problems they face (Coombs 1980:2).

Non-formal distance education is also dependent on popular participation to sustain the message it broadcasts. It can improve local capabilities through the dissemination of knowledge, but to have that knowledge implemented, to have it put into practice, it needs the support of the rural poor. It is important that any programme should leave the local people room in which to move. It should therefore try to conform to David Korten's guidelines (1980:484):

In general the need is for a flexible, sustained, experimental, action based capacity building style of assistance...

It is also important that non-formal education should not have an elitist bias. This is the single most outstanding problem of formal education in the Third World. Non-formal education must not go the same way, and to help it to chart its own course it needs the input of those persons most in need of non-formal education, those who suffer from the built-in discrimination of formal education.

We would do well to take notice of what Simmons (1979:1013) has to say on this matter:

All too often... the lack of participation by the intended beneficiaries, along with the political clout of those with vested interests in the status quo, combine to block effective educational reform. Unless the beneficiaries of these changes are themselves enabled to help plan and implement reforms, and until constituencies are formed to counter the inertia of the status quo, the existing inefficiencies and inequities of the educational systems in developing countries are bound to perpetuate themselves.

The other prerequisite to which I would like to draw your attention is that of integration. One of the main problems in the development efforts in the Third World has always been that the rural poor have been confronted and often bombarded with various unrelated and often conflicting messages and actions. This has been the result of separate planning and implementation of development programmes. Each government department and non-government aid agency has its own programme with its own target, which compete for the attention of the rural poor and for the same scarce resources. This has not only left the rural poor confused but has also left many development efforts in shambles.

The multiplicity of programmes has a bewildering impact on the rural poor. The target group is overwhelmed from all sides and is expected to participate enthusiastically or, at the very least to gratefully accept the efforts to uplift them from poverty. When programmes are integrated, however, the target group faces a single package with a num-

ber of logically interrelated components that do not cause confusion.

Activities at a local or even a regional level must be harmonized. One service or activity complements the next. As in the case of many programmes, the large number of organizations is confusing, and this is experienced negatively by rural inhabitants. Organizations must produce or accomplish something tangible in order to be "successful". To this end they will compete with and exclude others. They must, however, restrain this natural tendency so as to ensure meaningful rural development.

The most important element of integration remains the participant population. The focus of integrated rural development must therefore be on the participant population (Ahmed 1980:461):

The implication of this premise for national rural development efforts is that, instead of attempting to reach the rural population with vertical sectoral programs, a means must be found to form local organizations of homogeneous interest groups and make them serve as the instrument for integrating and managing the sectoral activities of the beneficiary population.

This quotation makes it clear how close participation and integration stand to each other.

Care must be taken in non-formal distance education lest confusion be worse confounded. It cannot present its own

message on health or farming or child care without concern for the other aspects of and actors in the rural development set-up. Authors on non-formal education agree on this matter. The International Extension College (1983b:38) states that it is obvious that responsibility for adult education cannot be confined to a ministry of education. Education for basic needs will involve health and agriculture and sometimes community development ministry staff. It concludes that there is no clear division of authority for adult education.

It adds (p.41) that co-ordination at a national level needs to be complemented by local co-ordination, through such bodies as district development committees or village extension teams. These local committees should include members of learning groups or classes. In a study of primary health care as rural communication, Van den Bogaert (1983:61) comes to the conclusion that the rural communicator should not see health in a sectoral manner, but as part of an integral approach to rural development.

A health programme may be adopted as a starting or entry point, but the problems one encounters of malnutrition, etc., soon lead one to do something concrete about drinking water, animal husbandry, culture, etc.

Instead of cluttering the issue, non-formal distance education can be the integrating factor. It must disseminate information according to the needs of the rural poor. This will obviously include a wide variety of sectors. Not only should the sectoral educational messages be integrated

among themselves, but they must also be integrated with wider rural development programmes. In this way non-formal distance education will have at its disposal not only local citizen groups but also local representatives of various ministries and departments as a combined local support structure.

Conclusion

There is no doubt in my mind as to the necessity of non-formal distance education. Formal education cannot cope with the needs of the poor, weak, vulnerable, and isolated rural household. Likewise, formal rural extension programmes cannot reach those who need them most. Non-formal distance education can and must fill this gap, bearing in mind, of course, the prerequisites of participation and integration.

This conclusion also holds true for South Africa and the Southern African region. The infrastructure for distance education is better than anywhere else in Africa and compares well with that in Latin America. Government services throughout this region are fairly well staffed with extension personnel who could act as facilitators of distance education programmes. Radio and television infrastructure is as good as or better than, most in the Third World, and because of the long-standing migratory labour system postal services have been geared to reach the remotest of rural areas.

If we forget for a moment policy directives on university teaching in South Africa, we can just imagine the vast po-

tential for non-formal distance education of an institution such as Unisa. This university has already accumulated a great number of experts in development related fields and has the experience and technology for distance education. One is tempted to ask whether it is still possible in this day and age and with the glaring need of the rural poor apparent to all, to be so "Western-minded" about an institution such as Unisa.

Urgent attention must be given to the need for and potential of non-formal distance education in this country and region. Our society needs highly qualified professionals and well-trained artisans and workers. But we also need to help the destitute masses in the rural areas to help themselves. If we are to do this we dare not ignore the potential of non-formal distance education; an education that is functional and that can lead people to self-reliance.

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BIBLIOGRAPHY

- Ahmed, M. 1980 BRAC: Building human infrastructures to serve the rural poor, in Meeting the basic needs of the rural poor. The integrated community-based approach, edited by P.H. Coombs, New York: Pergamon Press.
- Bock, J.C. & Papagiannis, G.J. 1983. Some alternative perspectives on the role of nonformal education in national development, in Nonformal education and national development. A critical assessment of policy, research, and practice, edited by J.C. Bock & G.J. Papagiannis, New York: Praeger.
- Brace, J. 1984. The coming of age of development communication, Media in education and development 17 (no. 2), 114-119.
- Chambers, R. 1983. Rural development. Putting the last first. London: Longman.
- Coombs, P.H. 1980. What it will take to help the rural poor, in Meeting the basic needs of the rural poor. The integrated community-based approach, edited by P.H. Coombs, New York: Pergamon Press.
- Cornwell, L. & Van Heerden, M.E. 1983. Onderwys as ontwikkelingsinstrument in Afrika, Africanus 13 (nos. 1 & 2), 6-16.
- Fraser, C. 1983. Adapting communication technology for rural development, Ceres 16 (no. 5), 23-27.

- Gow, D.D. & Morss, E.R. 1981. Local organization, participation and rural development: results from a seven-country study. Rural Development Participation Review II (no. 2), 12-17.
- Harbison, F.H. 1973. Human resources and non-formal education, in New strategies for educational development, edited by C.S. Brembeck & T.J. Thompson, Lexington: Lexington Books.
- Hartshorne, K. 1985. In pursuit of learning. Leadership South Africa: Human Resources.
- Huntington, R. 1980. Popular participation in Sudan: The Abyei project, Rural Development Participation Review, II (no. 1), 14-18.
- International Extension College 1983a. Mass media for health education by Janet Jenkins, Cambridge: International Extension College.
- International Extension College 1983b. Basic education for adults, Cambridge: International Extension College.
- Korten, D.C. 1980. Community organization and rural development: A learning process approach; Public Administration Review, 480-511.
- Korten, F.F. 1983. Community participation: A management perspective on obstacles and options, in Bureaucracy and the poor. Closing the gap, edited by D.C. Korten & F.B. Alfonso, West Hartford: Kumarian Press.
- Richards, P. 1985. Indigenous agricultural revolution. Ecology and food production in West Africa. London: Hutchinson.

- Rondinelli, D.A. & Ruddle, K. 1978. Urbanization and rural development. A spatial policy for equitable growth. New York: Praeger.
- Simmons, J. 1979. Education for development reconsidered, World Development 7 1005-1016.
- Tanguiane, S. 1983. Education in a changing world, Courier (no. 5), 5-8.
- Van den Bogaert, M. 1983. Primary health care as rural communication, Assignment Children 2. 59-67.

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TAKING A POSITIVE VIEW OF THE (DIS)ADVANTAGES OF DISTANCE TEACHING :
 READING SKILLS, WRITING SKILLS AND THEORY OF LITERATURE

Ina Gräbe
 Theory of Literature

Looking at distance teaching from a distance, that is, trying to assess its effectiveness from the perspective of the more direct teaching situation prevalent at residential universities, it seems inevitable that the obvious absence of oral communication between lecturer and student should present itself as a serious lack, if not an insurmountable stumbling-block, in the type of indirect tertiary tuition attempted at institutions like Unisa. After all, hasn't the ideal teaching situation always been visualised, since ancient times, as that in which a distinguished tutor or 'master' orally instructs his students or 'followers', who would naturally find themselves in the privileged position of (literally) sitting at his feet and absorbing his wisdom? Granted that the situation at huge modern universities could hardly be compared to the seemingly utopian personal contact that existed between Aristotle and his students, the fact remains that productive interaction between lecturer and student, or between fellow students, is at least provided for at residential universities on a regular basis, whereas such interaction is virtually ruled out in distance education.

Given these problems it will be obvious that any honest diagnosis of distance education would necessarily have to acknowledge this lack of direct communication and its concomitant negative effects on tuition. Deprived of such basic teaching aids as a blackboard and chalk, an overhead projector or some slides and the possibility of sophisticated interaction in discussion groups (particularly on a postgraduate level), a lecturer at Unisa might well wonder how he is supposed to teach at all. Similarly, deprived of the indispensable guidance of the lecturer in lectures or private and group discussions, a student registered at Unisa might well despair of ever obtaining the much desired knowledge or degree. In fact, this central problem of distance teaching seems to be

so serious that it could perhaps be compared to an infliction such as blindness - a student at Unisa is not debarred from education, but he does have to manage in the absence of some vital components of the teaching situation; a blind person is not prevented from leading a relatively normal life but he does have to manage as best he could without being able to see.

If one expands the analogy between a Unisa student trying to obtain knowledge without the benefit of direct tuition and a blind person wandering about in a seeing world without the ability to see, one might at first be tempted to think that the problem of distance teaching could best be addressed by inventing means to compensate for what would otherwise seem to be a truly crippling deficiency. In the absence of direct tuition on a daily basis, one could still try to establish oral contact by having discussion classes once in a while, by encouraging students to telephone their lecturers, by complementing written tutorial matter with tapes or perhaps even by indulging in occasional individual tuition in one's office. However, these strategies remain but poor substitutes for the direct contact situation at residential universities, in the same way as a white stick or a trained dog can hardly be regarded as adequate compensation for the loss of sight. At best, measures for establishing direct contact orally could have only marginal value in the tuition programmes of correspondence universities, since the impact of such measures is restricted to a relatively small number of students who are in a position to benefit from the lecturer's personal guidance.

If it is not possible to address adequately the lack of direct communication in distance teaching, the question arises whether one should bother at all to direct one's energy to devising means of preserving some semblance of oral tuition at Unisa. If distance teaching by means of the written word seems, in principle, to rule out contact teaching by means of the spoken word, why should one persist in trying to find substitutions for direct oral tuition? If a blind person will never be able to see, why persist in inventing means whereby he could simulate the behaviour of a seeing person? Wouldn't it perhaps be more beneficial to rather concentrate on the **potential** of the blind as **blind people** than to

direct energy towards the alleviation of their obvious and irreversible deficiencies? Similarly, shouldn't one explore the possibilities of **distance** teaching rather than to unsuccessfully try and compensate for the lack of direct tuition?

My analogy between distance teaching and assisting the blind is not accidental. I have developed it deliberately because what is regarded as a revolutionary approach to educating the blind has recently been announced in a review of a book on blindness. In this new approach a positive as opposed to a negative attitude towards blindness and the situation of blind people is being advocated. Instead of training the blind to try and cope in a seeing world, it is maintained that they should rather be alerted to the largely unexplored potential of being blind and existing in a blind world. It seems to me that institutions such as Unisa could benefit from this central insight: **an apparent deficiency can be turned into an asset**. In a positive approach to distance teaching one could direct one's energy to exploring the possibilities of distance education rather than to keep trying to compensate for the lack of direct oral communication. Such a positive approach would have to focus, then, on the potential of **teaching through the written word** as opposed to communicating by means of the spoken word. The fact that Unisa students are forced to approach their subject through **reading**, and the fact that Unisa lecturers are compelled to resort to **writing** as the predominant mode in distance tuition could, then, be viewed not so much as an obstacle but rather as a challenge. Such a re-appraisal of the situation would alert one to the potential of enhancing reading and writing skills - something that could undoubtedly be attempted with far greater effectiveness at an institution such as Unisa than at residential universities where direct oral communication still remains the norm.

The basic tutorial matter of Unisa students consists of prescribed and recommended reading, study guides and tutorial letters, each fulfilling a specific function within the educational programme:

- (i) The prescribed and recommended texts supply the necessary information regarding the subject matter to be studied;
- (ii) the study guides are supposed to help the student to come to grips with the prescribed and recommended reading and
- (iii) the tutorial letters attempt to address students' problems or to complement the study guides where it becomes clear that difficult sections necessitate some elaboration or additional explanation.

The tacit assumption of such a programme seems to be that the successful Unisa student will gradually learn to cope with the various written texts that comprise his tutorial matter. This means that he is supposed to become a critical and creative reader who extracts his knowledge from different sources, as opposed to a passive summariser or reproducer of lecture notes - quite a common phenomenon at residential universities. If, then, this assumption were valid, one would be tempted to conclude: exposure to distance teaching automatically produces better results than participation in contact teaching.

However, as the alarming failure rate of Unisa students, especially those registered for first-year courses, all too clearly demonstrates, there is nothing 'automatic' about the skills required to cope with distance teaching. This suggests, of course, that these basic skills - reading with comprehension and writing with clarity - if they are to be taught adequately, demand serious consideration and a concerted effort from all lecturers teaching at Unisa. Apart from the necessity of gradually developing a student's ability to cope with increasingly complex reading material at the various levels of undergraduate and postgraduate programmes, it seems essential to consider the reading skills required to cope with first year courses. At Unisa, the question of upgrading the reading skills of first-year students presents a unique problem due to the ethnic diversity of its students and the unfair advantage English- and Afrikaans-speaking students seem to have over those students who are forced to undertake their studies through a language other than their mother tongue.

Such complications become particularly crucial in teaching a subject such as theory of literature where the student has to cope with both theoretical and literary texts. In addition, the student ought to be able to express the critical awareness, fostered by his growing ability to consider literary texts in the light of different theoretical approaches, in logically presented and well planned essay-type assignments. These requirements, of course, hold for all students in theory of literature, irrespective of their means of tuition, whether direct communication with lecturers at a residential university or indirect tuition through distance teaching. If reading and writing skills could really be addressed more effectively through the basic tutorial matter on which distance teaching has to rely, it follows that a subject such as theory of literature could indeed benefit from tuition through the written rather than the spoken word. In fact, the level of sophistication that students in the final year of the honours course invariably achieve in their research articles clearly points to the advantages of distance teaching in this regard. Not only are these students capable of independent research based on the experience of extensive reading, but their work also bears witness to the fact that they are capable of independent **thought**. Small wonder, then, that the external examiner at a residential university explicitly commented on the advantages of studying literary theory through distance teaching.

If then, one considers distance teaching from a positive angle, the real challenge to lecturing at institutions such as Unisa becomes clear: rather than trying to compensate for the loss of direct oral communication, energy should be directed towards devising means of improving the reading and writing skills of Unisa students. Some obvious logical steps present themselves:

- Careful selection of prescribed material so as to ensure a systematic and lucid exposition of the subject matter;
- effective clarification of the prescribed material in the study guides;

- careful setting of tasks in assignments so as to progressively foster both perceptive reading and clear formulation;
- sensitive corrective teaching in follow-up tutorial letters to address problems students have in completing their assignments.

After the student has been exposed to these measures, the more sophisticated reading and writing skills can be introduced at honours level. Here the student will be required to read extensively on a topic he wishes to discuss and present by means of a sustained argument in a fairly extensive assignment of 20 to 30 pages. He will be exposed to the divergent approaches of different sources and will have to be able to defend his own position in a critical or theoretical debate. Also, the student will have to consider critically theoretical issues such as reading strategies for literary texts or the uses and abuses of literary theory in interdisciplinary discussions. Provided he meets these requirements, a student holding an honours degree in literary theory obtained at Unisa will undoubtedly have reached a level of research maturity that his fellow student at a residential university will probably only gradually acquire during his years of more independent study on M.A. and D.Litt levels. This, then, seems to me to be an advantageous outcome from approaching distance teaching from a positive as opposed to a negative perspective and concentrating on constantly improving the basic skills required to cope with distance teaching. It is clear that sophisticated reading and writing skills assist the student exposed to distance education in becoming a mature and independent thinker on literary-theoretical issues.

Undoubtedly, guiding a student in gradually acquiring such sophisticated reading and writing skills demands constant imaginative input from a distance-teaching lecturer. When working backwards from the demands of honours to those of undergraduate levels it becomes necessary to correctly diagnose a student's problems in coping with increasing levels of complexity in reading and increasing demands for more elegant formulation. The challenge presenting itself to the lecturer is that of devising means of compiling and phrasing questions in such a way that answering them

will ensure that a student gradually obtains the required level of sophistication in both perceptive reading and elegant formulation. When working even further backwards to the requirements necessary for coping with a first-year course it becomes clear that a particularly thorny problem confronts the lecturer at Unisa - how to cope with students who have not mastered the necessary pre-university reading skills and in addition have to develop writing skills in a language other than their mother tongue. This problem has taken on such vast proportions that it merits a special preparatory year for all Unisa students experiencing difficulty in coping with the requirements of first-year courses. No doubt, if Unisa could succeed in meeting this challenge, it could make a most significant contribution to the education of all the peoples of South Africa. Provided the challenge of teaching reading and writing skills could be met on both undergraduate and postgraduate levels, distance teaching at institutions such as Unisa can go a long way towards meeting the exigencies of the expected explosion in university student enrolments. This is certainly a challenge worth viewing from the positive perspective of the special advantages inherent in distance teaching. In an age where technological achievement has apparently become more important than philosophical and theoretical contemplation, a re-assertion of the crucial and critical value of sophisticated reading and writing skills might well restore some sanity to a world seemingly devoid of a future vision.

CONTINUING EDUCATION AS A FUNCTION OF A UNIVERSITY FOR
DISTANCE EDUCATION

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1. INTRODUCTION

Adult education, recurrent education, self-directed learning, continuing education and lifelong learning are all terms becoming familiar in the home, school and workplace. During the last ten years the concept of lifelong education has, not without difficulty, begun to be adopted as a principle of educational policy and planning by politicians and educationists: it has been seen not simply as one element of the education system but as a means of transforming it in both its formal and nonformal aspects (Gelpi, 1984:79).

As early as 1928 E L Thorndike, in writing about the mental functions of learning, recognised that adults can continue to learn throughout their lifetimes. Only in the 1960's and the 1970's did adult learning become legitimised by such authors as Malcolm S Knowles and his use of the term 'andragogy' was used to refer to the learning process of adults. The writings of adult educators helped us to anticipate that changes in the way adults learned, were fast approaching and helped us prepare ourselves to face new groups of learners, new ways of learning, and learning in non-traditional settings (Duffy & Fendt, 1984:41).

Changes occurring in our society are not only demographic but they are also economic, technological, and social. Job and career changes are more frequent, machines continue to replace blue collar workers, and:

"recurrent education and the cyclic life span stress alternating patterns of education, work, and leisure" (Cross, 1982:11).

Perhaps the most important change is to view education as a recurring but lifelong process.

2. SHORTCOMINGS OF FORMAL SYSTEMS OF EDUCATION

It is now recognised that if education is to act as a positive force in the development process it must not only undergo qualitative change but also be planned in close relation with national needs for social and economic development. The disparity which has arisen between educational systems and their environments requires the implementation of qualitative changes which go beyond mere surface structure reforms of the traditional model.

The following shortcomings are commonly cited by critics of the existing systems of formal education.

- 2.1 Formal education is expected to provide the basis for an individual's participation in society and economy. The crucial period of psychological and intellectual growth prior to entry into school - up to the age of 5 or 6 - is left to chance, and a large span of life - from the early 20's onwards - is left substantially uncatered for by the formal system.
- 2.2 Education has been based upon a process in which the teacher teaches and the student learns. This process, sometimes described as "the banking concept of education" places great emphasis on the development of cognitive knowledge and vocational skills. The curriculum is well-defined and the content is standardised across large groups of learners, allowing for a minimum participation in its structuring.

- 2.3 Because of the predominant equation of 'education = schooling', learning in school has become dissociated from other sources of knowledge, and knowledge for the future has become dissociated from everyday life. This has resulted in the general divorce of education from life and the failure to capitalise upon experience gained outside the school environment.
- 2.4 Education has failed to achieve the measure of equality which was expected of it.
- 2.5 The failure to achieve the principle of education as a human right - the number of children out-of-school will increase to 375 million in 1985 and a growing number of the world's population remain illiterate (34,2%) in 1970.
- 2.6 The expensive nature of education - the system is both resource and labour intensive, making use of expensive infrastructure and relying on trained teachers.
- 2.7 The unsuitability of outputs from the formal system. There has been a general failure to integrate educational expansion with the needs of the individual, of society, of the economy and of national development.
- 2.8 The increasing tendency towards early specialisation and the dichotomy between manual and intellectual disciplines.

Not all the criticism included in this list of shortcomings of formal education systems apply equally to developed and developing countries. However, the major failures of such systems are seen as common to both contexts (Ireland, 1978:9, 10).

3. CHARACTERISTICS OF CONTINUING EDUCATION AS A SUPPLEMENT TO FORMAL EDUCATION

Continuing education and recurrent education forms a part of lifelong education which is based on the distribution of education over the life-span of the individual in a recurring way. It implies the alteration of education with other activities, of which the principal will be work.

Lifelong education is not seen as restricted to a particular period of life. It is a lifelong process which cover the entire life-span of the individual embracing and unifying all stages of education - pre-primary, primary, secondary, tertiary and adult education. It views education not as a fragmented spectrum.

Continuing education may be seen as part and parcel of nonformal education which according to Coombs and Ahmed (1974:8) can be defined as:

"Any organized, systematic activity carried on outside the framework of the formal system to provide selected types of learning to particular subgroups of the population, adults as well as children."

According to the Evans model, the relationship between formal education and continuing education as nonformal education may be described in four categories.

- (1) The category of complementary education - where continuing education will complement formal education.
- (2) The category of supplementary education where continuing education will supplement formal education in areas other than those covered by the school.

- (3) The category of substitutive education where formal education is substituted or replaced by nonformal education.
- (4) The category of the anticipated integration of the formal system of education with the nonformal system of education to benefit the community as a whole (Van der Stoep, 1984:44).

Other characteristics of continuing education are:

- 3.1 Continuing education is rooted in the community which performs an important educative role. Life itself is seen as a major source of learning.
- 3.2 Continuing education seeks integration at its horizontal (broad) and vertical (depth) dimensions at every stage in life.
- 3.3 Continuing education represents the democratisation of education. It is based, not on an elitist principle but on the universalist principle of education for all.
- 3.4 Continuing education is a dynamic approach to education which allows adaptation of materials and media as and when new developments take place. Learning aids and techniques, content and time of learning are all flexible and diverse.
- 3.5 Continuing education provides individuals and society with opportunities not only to adapt to change but also to participate in change and to innovate.
- 3.6 The ultimate goal of continuing education is to maintain and improve the quality of life (Ireland, 1978:20). The 'quality of life' depends on the individual society's system of values. Among other things, it depends on the

political system, social traditions, economic conditions and the idea of what 'a good life' actually means.

The whole idea of continuing education was that education should not come as a break in people's lives, in the form of recapitulation and continuation courses, but that education should, instead, be considered as being permanently in progress. The concept of lifelong education including continuing education did not merely include formally, specially arranged courses, but also more occasional and informal forms of learning which can occur at work, and in leisure time in conversation, discussions, reading newspapers, listening to the radio, watching television, etc.

4. NOTABLE FEATURES OF DISTANCE EDUCATION

Over the last decade the term distance education has come into use to describe approaches to teaching and learning that also carry names such as home study, correspondence education, independent study, tele-education, open learning and external studies. Keegan (1980) has attempted a definition of distance education based on an analysis of these various traditions. He suggested that it has the following characteristics:

- the separation of teacher and learner;
- the influence of an educational organisation that distinguishes it from private study;
- the use of technical media, usually print, to unite teacher and learner;
- the provision of two-way communication so that the student may benefit from or initiate dialogue;
- the teaching of people mainly as individuals and rarely in groups;
- the elements of a more industrialised form of education.

Stewart (1982) has argued that it is wrong to see distance education as a discrete genre. He pointed out that all educational approaches lie somewhere on a scale between continuous face-to-face interaction between one teacher and one student (in which the teacher is the sole source of knowledge) and the independent student learning solely from materials by himself (Daniël, 1983:155).

Distance education through correspondence study serve relatively dispersed student populations and involve a minimal reliance on, or significant change in the role of face-to-face teaching. In so doing they liberate the student from the constraints of space, time (and often age), associated with conventional provision, permitting him a degree of flexibility as to the regularity, timing and location of his study activities (Kaye & Rumble, 1981:18).

4.1 Concerning students

Concerning the students, the key features here are:

- the importance of accurate and accessible student records
- the need for mechanisms of communication between students and local production and teaching staff
- the requirement for careful analysis of the local support and tuition facilities which can be made available
- the importance of building careful monitoring procedures into the assessment system if credibility of degrees and diplomas is a key issue.

4.2 Concerning courses

Concerning the learning materials and teaching methods which characterise the courses, the notable features are:

- a flexibility in the curriculum and content of learning materials through modular structures or credit systems
- the conscious and systematic design of learning materials for independent study, incorporating for example clearly formulated learning objectives, self-assessment devices, student activities and the provision of feedback from teaching staff to students and vice versa
- the planned use of a wide range of media, suited to the needs of the students which may include specially prepared correspondence texts, books, newspaper supplements, posters, radio and TV broadcasts, audio- and video cassettes, films, computer assisted learning, local tuition and counselling, student self-help groups and lending library facilities
- the need for a strong yet flexible organisational structure to link together the academic and operational activities associated with the creation and production of courses
- teaching activities should be content-oriented and should include defining the content to be learned, setting objectives, planning learning activities, presenting content, providing feedback related to standardised criteria, disseminating information and modelling appropriate behaviour (Collins, 1984:28).

The organisational structure of face-to-face education thus tends to compress all learners into the confines of a particular structure, and in so doing tends to make their learning dependent upon the structure, or even to lead them to equate worthwhile learning exclusively with the organisational

structure. By contrast, distance education offers the prospect of individualising many aspects of learning. For instance, learners engage in learning activities, not when the organisational schedule says they have to, but when they want to. They can go over materials repeatedly, if they wish to, or consult additional sources, can polish and rework material which is to be evaluated until they are satisfied with it.

The process of activation, guidance and maintenance of learning activities can be referred to as involving a 'psychodynamic of distance learning' (Cropley & Kahl, 1983:31).

5. THE COHERENCE BETWEEN DISTANCE EDUCATION AND NONFORMAL EDUCATION

During 1985 the referent conducted a research project to determine the relationship between distance education and continuing education as a component of nonformal education.

The target group for the investigation was 400 non-degree students who were enrolled for various courses at Unisa.

Fig. 1: Data of questionnaires posted and received back

Questionnaires posted	400
Questionnaires received	218
Percentage received	54,4%

The responses of students were not ideal, but they were distributed all over the Republic of South Africa and even abroad and although follow-up letters were sent out to those students who refused to respond, the responses were still dissappointingly low.

The majority of the respondents were of the age group 17-50 years and 66,06% of them were males, while 33,94% of them were females.

5.1 Advantages of distance education

Respondents were asked to arrange the advantages of distance education in order of importance to their opinion. The following hierarchical order of advantages was established according to the majority of respondents.

- (1) Study takes place at times best suited to the student's schedule.
- (2) Absence from classes does not disadvantage the student.
- (3) Promotes self-activity.
- (4) Teaching opportunities are the same for everybody.
- (5) The rate of progress is not dictated by the class group.
- (6) Well-structured learning content which is worked out according to modules aimed at the acquisition of credits.
- (7) High standard and quality of tutorial material.
- (8) Enrichment of the curriculum.
- (9) Makes possible individualised instruction for each student.
- (10) Achievements in examinations are better than those obtained by post-graduate students.

The same kind of hierarchical ordering may also be possible for the disadvantages of distance education, but will not be reported in this paper.

5.2 The need for nonformal educational programmes

Respondents were requested to indicate their requirements for nonformal teaching courses.

Three variables were applicable each time, viz: sex, language and age. 58,47% of the respondents indicated that they experienced a great need for these programmes while 41,53% of the respondents indicated that they experienced only a small need for them or no need at all.

The following types of courses were emphasized as being important for continuing education:

- (a) career training (e.g. requirements, possibilities, nature, etc.)
- (b) in-service training for a specific career (e.g. refresher courses, conditions of service, etc.)
- (c) development of communities and individuals (e.g. health, family life, literacy, etc.)
- (d) cultural enrichment (e.g. the acquisition of languages, dance, politics, etc.)
- (e) legal affairs (e.g. private law and family law)
- (f) religion (e.g. dogma of various religions, knowledge of the Bible, etc.)
- (g) economic affairs (e.g. practical banking, property matters, etc.)

- (h) educational affairs (e.g. school readiness, parental involvement, etc.)
- (i) leisure time activities (e.g. hobbies, holidays, creative writing, etc.)
- (j) literacy programmes (e.g. basic literacy, knowledge of figures, computer literacy)
- (k) continuing education (e.g. institutions, adult education programmes, in-service training for a profession)
- (l) health (e.g. balanced diets, foodstuff, child illnesses)
- (m) vocational guidance (e.g. occupational choices, requirements, conditions of service)
- (n) computer literacy (e.g. computer awareness, microcomputers, computer languages)
- (o) mental health (e.g. tension, stress, psychiatric services, psychotherapy).

These programmes represent only broad categories suitable for continuing educational programmes and may serve as guidelines for course planners.

5.3 The teaching of nonformal continuing educational courses through distance teaching

Respondents were also requested to evaluate the suitability of the ways in which the various nonformal courses could be presented through distance education. They evaluated the different items as follows:

- (a) independent study packages (e.g. written material, cassettes, sound/slide programmes, gramophone records) are according to the respondents, very appropriate
- (b) only written and printed matter were considered as partly appropriate
- (c) continued teaching courses at a university/technikon were considered as partly and very appropriate
- (d) interactive video (e.g. video disc combined with the microcomputer and closed circuit television) as a medium of presenting the courses were evaluated by the respondents as partly appropriate and in some instances as very appropriate
- (e) presentation of learning contents through work seminars seem to be very appropriate
- (f) making courses available in libraries was evaluated by the respondents as very appropriate and sometimes partly appropriate
- (g) microcomputer programmes on floppy disks were considered by the respondents as partly appropriate and 20,85% of the respondents viewed it as inappropriate
- (h) using teleconference facilities and interactive video were evaluated as partly appropriate and 17,7% of the respondents evaluated this method as inappropriate
- (i) the presentation of short courses in community centres or in schools after hours was evaluated as very appropriate
- (j) the same applies to the use of sound cassettes combined with printed matter.

6. THE FUNCTION OF A UNIVERSITY FOR DISTANCE EDUCATION IN THE PROVISION OF CONTINUING EDUCATION

Universities as well as colleges for advanced education which have the possibility of attracting more post-experience students, including part-time, are now enrolling more adults. This might be accompanied by some shift of interest and resources to continuing education. It might also be enhanced by the fact that fewer school-leavers are entering higher education probably in part because of graduate unemployment and underemployment. Institutions of higher education might be in future more receptive to older students seeking places in courses for non-credit purposes (Duke, 1984:6).

In the Western industrial nations the 1980's are witnessing a reversal of trends that was taken for granted in the previous two decades. Two such reversals that will affect distance education are the desire to decrease government spending, especially on education and communications, the increased emphasis on 'autonomous' home electronic entertainment (e.g. video players and microcomputers as opposed to network TV).

Those trends do suggest that the demand for distance education will continue to grow, especially in job related subjects and those that help people cope with technological change. A university for distance education possesses the necessary infrastructure which includes highly trained and experienced teaching staff as well as the necessary know-how concerning the learning needs of their students and the different methodological approaches to the teaching of their students (Daniel, 1983:156).

The university should develop new courses or adapt existing courses to suit the learning needs of their potential adult student population with regard to nonformal educational programmes.

When the presentation of these courses is backed up by a multi-media approach the university will continue to make a significant contribution to the expansion of educational opportunity worldwide. Research should be undertaken on a continuing basis to determine the possibilities and learning opportunities that can be created by modern technology to give the student greater flexibility.

Modern educational technology including printed matter, broadcasting, interactive telecommunication, television, interactive video-, computer programmes, video cassettes, video discs and audio cassettes can either individually or in combination be integrated to convey learning content to the student and enhance learning.

For many years the belief that learning is improved and reinforced by the use of different mass media has been put into practice by using various combinations of reading, writing and oral teaching and of classroom and small-group work. A variety of combinations can be used to suit the need of varying situations and correspondence forms the basis of many of them, particularly for adult students.

7. CONCLUSION

Looking ahead to the next decade at least, what can society appropriately ask of the universities, of these large reservoirs of up-to-date specialised knowledge, research experience and teaching talent? (Costello & Richardson, 1982:80). The campus-bound, age limited, degree focussed and cubic mentality of the classroom is being pressed to give way to wider approaches to knowledge utilisation. Needed are conditions that enable adults to re-enter the educational arena, largely on their own terms (Durnall, 1978:27).

Taking into account the other forms of continuing education, the university has already moved towards being a

comprehensive provider for appropriate learning needs of adults in the community. It is time to stop talking about "vocational, non-vocational, liberal traditional and indeed adult education", and to see the universities for distance education as a provider of part-time as well as full-time education across the range of faculties for whoever can benefit from their services

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LITERATURE

1. Clarke, R.F. The role of radio and television in correspondence education. pp. 57-70
2. Collins, C.B. 1984. The limitations of lifelong education: a critique of predominant paradigms. Convergence, vol XVII, no. 1, pp. 28-37.
3. Coombs, P.H. & Ahmed, M. 1974. Attacking rural poverty: how non-formal education can help. Baltimore: The Johns Hopkins University Press.
4. Costello, N. & Richardson, M. 1982. Continuing education for the post industrial society. Milton Keynes: The Open University Press.
5. Cropley, A.J. & Kahl, T.N. 1983. Distance education and distance learning. Distance Education, vol. 4, no. 1, pp. 27-39.
6. Duffy, K.L. & Fendt, P.F. 1984. Trends in adult learning: Implications for community college educators. Community College Review, vol. 12, no. 1, pp. 41-47.
7. Daniël, J.S. 1983. Independence and interaction in distance education: new technologies for home study. PLET, vol. 20, no. 3, April, pp. 155-160.

8. Cross, K.P. 1982. Adults as learners. Increasing participation and facilitating learning. San Francisco: Jossey Bass.
9. Duke, C. 1984. Issues of organizing adult continuing education: the context of Australian trends and examples. Convergence, vol XVII, no. 2, pp. 3-13.
10. Durnall, E.J. 1978. Noncredit continuing education: Guidelines for the future. Lifelong Learning: The adult years, February, pp.18-27.
11. Gelpi, E. 1984. Lifelong education: Opportunities and obstacles. International Journal of Lifelong Education, vol. 3, no. 2, pp. 79-87.
12. Ireland, T.D. 1978. Gelpi's view of lifelong education. Manchester: Monographs 14 September.
13. Kaye, A. & Rumble, G. 1981. Distance teaching for higher adult education. London Croom Helm in association with The Open University Press.
14. Van der Stoep, F. 1984. Non-formal education. Pretoria: Codex Publishers.

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THE POSSIBLE ROLE OF DISTANCE TEACHING IN THE EDUCATION SYSTEM OF SOUTH AFRICA

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1. INTRODUCTION

When one reflects upon the essence of education one could say that the aim of education is to prepare the learner for his cultural mandate.

In his analysis of what education entails Van Schaikwyk (1986:16) indicates that educative teaching essentially means the accompaniment of the child by the educator to a fuller life and knowledge and better behaviour.

As we will see later this principle should form one of the cornerstones of distance teaching.

2. THE STRUCTURE OF THE EDUCATION SYSTEM

According to Stone (1974:129) the education system is an interwoven structure in which a number of social structures are intertwined. The interwovenness should be such that each social structure should remain sovereign in its own sphere. Each of these social structures has a specific task to execute and role to play in the education system. The state, for instance, as the bearer of the sword has inter alia the task to create the juridical base for the education system as well as to provide the finances to make formal teaching possible. The state also has to determine the role which each of the other social structures has to play.

The role of the parents on the other hand is to bring up the child with love and care so that he or she will be in a position to receive formal education.

Commerce and industry has a special interest in the education system because not only does it have to employ the "products" of the schools, but it pays most of the tax whereby education is financed.

In this paper time does not allow the whole spectrum of distance teaching in South Africa to be covered. We will only concentrate on the secondary school phase.

3. THE SPECIFIC AIMS OF SECONDARY SCHOOL EDUCATION

Whatever aims are stated in the various syllabi of the secondary school I am of the opinion that schools impart to the children the necessary knowledge to pass the various examinations. Furthermore, it is my opinion that this takes place at the expense of the learning of the necessary skills.

The reason for this is, I think, the fact that our Western culture with its scientific orientation places great value on knowledge. This point could be taken further but for the sake of brevity I will leave it at that. All I want to emphasize is that in our curriculum for the secondary school we should keep in mind the skills a young person needs when he enters the workplace or when he is admitted to tertiary education.

What type of skills are needed by a student when leaving school is a matter about which much can be said. It is sufficient to state here that far more cognisance should be taken of the skills commerce and industry require from school leavers.

The question of skills should in my opinion receive urgent attention when an expansion of distance teaching is considered.

4. SOME ASPECTS OF THE BACKGROUND OF SECONDARY SCHOOL EDUCATION IN SOUTH AFRICA

The situation of the educational setting in South Africa has a number of outstanding features. I would like to consider some of these.

In the first instance the education system as a whole is characterised by an overabundance of learners and a lack of sufficient facilities and personnel especially amongst the Black and Coloured population groups.

Even if all available funds would be channelled into the education system for Blacks, education of a satisfactory level would not be reached in the short term. This necessitates the investigation into alternatives for the

present school system.

It is true that the whole question of non-formal education is presently receiving much attention and in spite of the role non-formal education plays in the economic development of South Africa it cannot address one of the basic educational needs namely education which can lead to the acquisition of a formal educational qualification.

A further problem encountered in Black education and to a lesser extent in Coloured education is the way politics is used to disrupt the normal educational program. The result is that the existing facilities and staff are not properly utilised.

Both the explosion in student numbers and the political situation in Black schools causes one to look at an alternative such as distance teaching.

Let us consider the state of secondary school distance teaching at this stage.

5. THE PRESENT POSITION OF DISTANCE TEACHING ON SECONDARY LEVEL

Although the Department of Education and Training is at present engaged in distance education for adults, the correspondence colleges are the institutions involved in distance teaching which i.a. lead to the acquisition of a secondary school certificate.

Eksteen (1986:20) indicates the tremendous growth of the colleges from 1969 to 1983 : in the case of Whites the growth was 69,22%, Coloureds 452,68%, Asians 78,71% and Blacks 338,29%.

Although the dropout rate is about 1/3, those who write the examinations fare better than part-time students.

What is interesting about the age of the students who study through correspondence colleges is that most of them fall in the age group between 28 and 35 years (Eksteen, 1985:21). This to some extent explains the relative success of these students.

Something of further interest is that there are relative few students under the age of 28 years enrolled in these colleges. In this age group there are a significant number of Blacks who did not reach the level of secondary education which their abilities should have allowed. This is the group which most probably can benefit most from an alternative form of education.

6. POSSIBLE CHANGES TO THE EDUCATION SYSTEM WHICH COULD LEAD TO THE BETTER UTILISATION OF DISTANCE TEACHING

As indicated previously distance teaching already fills a need for secondary school education. The question is how it can be extended so as to reach more of those persons who for some or other reason could not complete their secondary schooling.

Whatever system or model will be considered when an attempt is made to extend distance teaching on the secondary school level, cognisance should be taken of the role of correspondence colleges. One model could simply be the subsidisation of these colleges to make it possible for more students to study through them. In this way the state could honour its obligation of financing education.

It should be relatively easy to implement this model. However this will necessitate the evaluation and accreditation of these colleges because it cannot be expected of the state to subsidise an institution over which it does not have some form of control. This means that these colleges will have to submit themselves to some supervisory action from the state, but it will lead to an increase in enrolments.

Although this model has certain advantages its disadvantages are that it has all the drawbacks of distance teaching, the most important of which is the insufficient accompaniment of the students. On the other hand it is true that if these colleges are subsidised as far as the students who should still be at school are concerned, a better student/staff ratio could be reached with obvious benefits to the students.

Although this model has distinct advantages for example the fact the correspondence colleges are politically neutral I do not believe that it will

sufficiently alleviate the contemporary educational problems. Eksteen (1986:27) mentions a number of problems experienced with this type of education. Firstly contact between teacher and student is not what it should be, secondly the tutorial matter is developed for a broad student population and individualisation suffers. Furthermore the teachers are not always well-informed as to the problems the students experience.

It therefore seems to me that another model for distance teaching should be developed.

In the introduction it was indicated that education implies accompaniment. Any teaching model should keep this in mind. Furthermore teaching which only leads to the acquisition of knowledge and does not give sufficient attention to the development of skills is not effective.

The distance teaching model I propose rests on two prerequisites. Firstly the maximum accompaniment of the student and secondly the development of the skills they will need most.

Although these are didactical matters and this paper is concerned more with the system of distance teaching the didactical model has specific implication for the system and should therefore receive attention.

One can say that the accompaniment of the student already begins when the curriculum is developed because the curriculum should meet the needs of the student. However where students are prepared by distance teaching to sit for the same examinations as the fulltime students, the curriculum is set and all that can be done through distance teaching is to prepare the pupils as well as possible for these examinations. Later on I will say something more about curriculum development.

The next step in student accompaniment is the development of tutorial matter. This tutorial matter could be bought from correspondence colleges which has the advantage that it could be introduced in a short time. Time, however, is not the only factor. What should be ascertained is whether the tutorial matter has been developed in such a way that the students will obtain the maximum benefit from it. It should be kept in mind that the effectiveness of an education system is not only determined by its running cost per student unit but more so by the success rate of its students.

It will therefore be worth the while to spend time and money on the development of tutorial matter - not only the writing thereof but also everything concerning the lay-out and the printing of the material should receive due attention. A whole team of experts is necessary in this regard.

If the state takes responsibility for this type of education it will have to ensure that the necessary expertise becomes available.

The next step in the accompaniment of the student involves the appointment of the teaching and administrative staff. In the ordinary correspondence college the teaching staff is involved in the writing of tutorial matter and the setting and marking of assignments. For the highly motivated, mature and capable students this may be enough. However, for the younger students who are more in need of support a different model should be considered. Even if it is only on an experimental basis, learning centres should be established in the major centres. In such a learning centre there could be a library as well as teaching and counselling staff who could be consulted by students. In this way one could enjoy the best of both distance and face-to-face teaching.

I realise that the establishment of such centres will not be without problems therefore I feel that they should be established on an experimental basis and ongoing research should evaluate the value of such a centre.

If such a centre could have facilities for students to study its value will be increased.

I am aware that with the establishment of such learning centres one is moving away from real distance teaching, but face-to-face encounters between student and teacher is quite common to distance teaching (cf Wellman 1970:22).

To obtain teaching staff for such a centre should not be difficult. Because of the declining birthrate of the White population group a growing number of especially woman teachers find difficulty in obtaining teaching posts in the White education departments and because of the political situation in the Black township these teachers are not able to teach there. In a learning centre such highly qualified teachers could be employed.

The establishment of such centres does not imply that all students will be able or should be able to visit them. For this reason the staff/student ratio for those staff responsible for correcting the assignments should be such that the teachers will have sufficient time to give detailed comments on students' assignments.

More time could be spent on the discussion of this model, however, what has been said is probably sufficient for you to understand what is envisaged.

Such a model could lead to greater contact between teacher and student which could further motivate the students and which could lead to greater student success. In applying this model one reaches what Holmberg (1985:26) described as successful distance teaching namely "a method of guided didactic conversation".

So much for the model that could cater for the student who wants to sit for the ordinary secondary school examinations.

There are, however, another group of students whom, I think, needs a different model. This model will cater for the students who are more interested in training for a career.

One of the advantages of distance teaching is that it is quite easy to adapt it. Furthermore students over the whole country could enroll for a course for which there may not be a great demand and which would not be viable if it only catered for students attending one school.

Furthermore vocational education is becoming more and more important. The question is what skills are needed in the market place? I am of the opinion that if the private sector and for that matter, the larger state employing organisations, like the Transport Services were approached to determine what skills they would desire the job seeker to have, this could have a far reaching effect on the curricula offered by distance teaching.

One of the problems with our formal education system is that many of the students view the education that is offered as irrelevant. I am aware that not only that which is relevant for the student should be taught, but if a student could obtain marketable skills during his education it would be

far more meaningful to him.

I am also aware that commerce and industry should not dictate the school curriculum, but when people who for some or other reason dropped out of school, are involved, the training in specific marketable skills could be far more economical in more senses than one. On completion of this course, the student can be utilised on an economic level much sooner.

Furthermore a student who knows that he can easily find employment on completion of his course will be a far more motivated student.

I am therefore of the opinion that the government should confer with leaders in commerce and industry in order to establish which skills should receive priority (as soon as possible).

It is true that a specific skill could, with the advance of technology become obsolete. However, in re-training use could again be made of distance teaching.

I know that the training in skills especially manual skills over a distance is not easy. Depending on the type of manual skill, this could be overcome to a lesser or greater extent by making use of different techniques. The learning centres mentioned previously could provide basic facilities that could be utilised even after hours. A student could be required to come to such a centre at certain intervals. The larger organisations could even be approached to make some of their facilities available. I am aware that these proposals will not be easy to execute but I think that our educational problems are such that some original thinking has to be done.

Wellman (1970:24) notes that in the USA correspondence colleges "maintain a close relationship with the industries they serve". I cannot see why it could be done here. The Technicon RSA offers practical courses in areas like Coal Mining, Laboratory Animal Technology and Nature Conservation. If it can be done there I cannot see why it cannot be done in the case of more limited skills. Apart from this, one should keep in mind that vocational training does not only entail manual skills.

7. IN CONCLUSION

I mentioned earlier that the correspondence colleges are politically neutral and I maintain that the distance teaching I proposed should be open to all population groups. It should not be an institution falling under the Department of Education and Training because then it will immediately be politicised. Although the Department of National Education does not run schools it will be politically wise to let such distance teaching fall under that department. The educational needs are so enormous that political dogma should not stand in the way.

BIBLIOGRAPHY

Eksteen F R L N, 1986. Die (maar tog minder bekende) bydrae wat die privaat korrespondensiekolleges tot die onderwys van die gemeenskap lewer. Onderwys vir die gemeenskap. Publikasiereeks van SAVBO, nr 20.

Holmberg B, 1985. Status and trends of distance education. Lund: Lector Publishing.

Stone H J S, 1974. Die struktuur en motief van die onderwysstelsel: 'n studie in die Vergelykende Opvoedkunde. Bloemfontein: Sacum.

Wellman H Q, 1970. The teenager and home study. New York: Richards Rosen Press inc.

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Accommodating a geographically dispersed student population with as many needs as there are students poses a formidable educational task for an institution of higher education. A task which is of particular interest in distance education is that of assessment, as it is imperative that the student in location A has through the medium of distance learning acquired the same level of proficiency as the student in location B. Rowntree (1977) defines assessment as 'obtaining and interpreting information about the knowledge, skills and attitudes of another person' who is usually a student. Due to the distance between the place of learning and the student, distance educational institutions relies heavily on formal assessment, the examination, as opposed to informal assessment which is of a continual nature such as coaching and helping the student to master skills and knowledge.

At present, formal examinations play a vital role in distance education as this is usually the only form of assessment. The utility of examinations is reflected in the multiplicity of purposes they serve. One of these purposes that has frequently been subjected to scrutiny is the social function because society has become more demanding that the student through higher learning be more socially relevant. Examination results therefore feature prominently in current debates about educational accountability.

The underlying dimension of the role of examinations can be summed up as: being held to account, but also to give an account (Ranson, et al.1986). These two dimensions reveal the social characteristics implied in the concept of accountability. Dunsire (1978) has expressed the following view of accountability.

"Being held accountable may mean... no more than having to answer questions about what has happened or is happening within ones jurisdiction. But most usages require an additional implication : the answer given, or the account when rendered is to be evaluated

by the superior or superior body, measured against some standards or some expectation and the differences noted...It is the coupling of the information with its evaluation and application of sanctions that gives accountability or answerability their full sense in ordinary organizational usage."

The issue of accountability in the applied disciplines particularly has very real significance because it is in these disciplines that the interest of the user is served. Through the examination, the applied disciplines are therefore held to account and have to give account of the utility and competence of the student to the environment demanding his or her skills and knowledge.

The relevance of the accountability relationship holds several implications. Let us consider Industrial psychology as an example of an applied discipline.

Psychological principles applied in industry arose out of a need to select suitable candidates for leadership during World War 1. Today, industrial psychologists perform a wide variety of functions using applied psychological principles. The *modus operandi* of the industrial psychologist is therefore to render a professional service in solving problems in the real world. In other words there is a relevant role in society for the industrial psychologist. The relevance of this role places a responsibility on industrial psychologists to go beyond the Aristotelian logic of explaining the properties of phenomena under study in solving problems in the real world. The role of the examination is therefore to assess the level of competence that the industrial psychologist has to possess to be socially relevant. As a result of the issue of social relevance of the applied disciplines a reciprocal relationship exists between the environmental needs and demands and the skills and knowledge acquired. Deutsch (1969) expresses this relationship rather aptly as follows: Science that excludes social relevance or social relevance that excludes science as irrelevant will in the long run be destructive to both.

According to Ranson et al. (1986) accountability seen in this perspective emphasises two competing modes, namely professional and market accountability. The latter mode illustrates the recent change in the form of

accountability which places increasing demands on those disciplines supplying skills and expertise to their users.

Professional accountability focuses on the quality of the educational experience. The argument put forward here points out that being held to account in this instance is best undertaken by teachers who understand the nature of the task as well as the level of progress made. Market accountability on the other hand, implies that the utility of the educational process is best evaluated by the market, consisting of the consumers of skills. According to this criterion those interested parties should play an active role in decision-making concerning the assessment process at every stage of examination.

From the professional point of view, the examination should concentrate on the learning process, to the exclusion of its market relevance, while on the other hand the market accountability criteria demands that the examination evaluate relevant knowledge and skills. The examiner is posed with a dilemma, because he or she has to comply with two conflicting sets of demands, which have to be met if the particular discipline is to make some contribution to the solution of real world problems.

How has the Department of Industrial Psychology responded to the task of accountability? Examinations, up to honours level, consist of written papers evaluating course content mastered during the year. At Masters level the examination is an oral one, although the year work does contribute to the final result. This takes care of the professional criteria as the student covers a number of specialised topics and he or she has to account for these in the examination. To account for the market criterion students have to occupy a position in a personnel department so that they have an opportunity to utilise their skills under the supervision of the Department of Industrial Psychology. Furthermore the skills which need to be acquired are evaluated during a period of supervision under a registered Industrial Psychologist. During this internship the student's progress is also assessed in terms of specific criteria laid down by the Occupational board for psychology. To meet both sets of criteria at this level involves a continuous evaluation and tutoring of the student to enable him to perform a professional function in solving work related problems.

At the honours level the two criteria are met to a large extent as students not only have to pass a written examination, but they have to attend a two week compulsory practical training course which entitles them to register with the Occupational board for psychology as psychometrists, which certifies that they are proficient to a lesser degree though, than the professional psychologist, but trained to perform a useful role in their work environment. Obtaining the degree is contingent upon attending the practical course at the honours level.

In the case of post-graduate students therefore the examination plays an important role, but it is supplemented by other assessments that ensure the competency of the student in meeting market criteria. The responsibility of the accountability relationship lies with the teaching institution and an external statutory body. The accountability of the undergraduate students performance in terms of the two criteria rests solely on the professional dimension i.e. a written examination focussing on theoretical aspects of the course. This situation is unsatisfactory since there is no control over the undergraduate student's competency in applying the vast amount of theory to practice. Another point of concern is that the undergraduate student body forms the bulk of the university output as measured by the number of degrees conferred. The market accountability of the student at the undergraduate level is left up to the student, which can at times be embarrassing to both student and educational institution. This point is illustrated by research conducted into the practice of organization development in South Africa (Coster, 1985). The majority of respondents possessed a bachelors degree in Industrial psychology (obtained at universities throughout South Africa). The results showed that there is confusion as to what interventions are used as 50% of the responses were unrelated to the practice of organization development. The lack of uniformity of standards similar to those reflected in the professional requirements point to the need for the applied disciplines to systematise their examination standards across a wide front. Needless to say that the relative absence of market accountability of the students in this case is a cost to their employer rather than an asset. Let me hasten to add that the skills and expertise required often does not demand the knowledge of that of a professional, but clearer guidelines as to what is required at undergraduate level, needs to be formulated.

At present, the examination at undergraduate level focuses on academic achievement, which should never be relegated to a lesser role, but neither should market accountability be ignored. In other words, the examination ought to assess the theoretical aspects of an applied discipline, but simultaneously an assessment of the market accountability needs to be made. The challenge lies in preparing students to play a meaningful role by ensuring that the examination is a fair reflection of both theoretical soundness as well as skills facility. Without abrogating the role of the university to that of skills teaching, the onus on those teaching is twofold namely; to educate as well as train students so that the employer of those acquired skills may have confidence in the level of competence reflected in the examination result.

References.

- Coster, E.A. (1985). A survey of organization development in South Africa. Unpublished manuscript.
- Deutsch, M. (1969). Socially relevant science: reflections on some studies of interpersonal conflict. American psychologist, 24, 1076-1092
- Dunsire, S. (1978). Control in a bureaucracy: the execution process. Vol. 2. London: Martin Robinson.
- Ranson, S., Gray, J., Jesson, D. and Jones, B. (1986) Exams in context: values and power in educational accountability. In D.L. Nuttall (ed.) Assessing educational achievement. London: The Falmer Press.

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